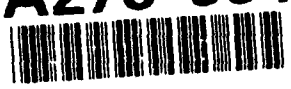

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NAVAL POWER AND NAVAL ARMS CONTROL DURING THE COLD WAR

Peter C. Stein
Robert P. Hilton, RADM, USN, (Ret.)
George Quester
Dennis F. DeRiggi

July 1992

Prepared for
Office of the Under Secretary of Defense for Acquisition
(Conventional Arms Control and Compliance)

INSTITUTE FOR DEFENSE ANALYSES
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This document provides background information relevant to the prospects for naval arms control. It discusses the characteristics of naval power, particularly as they related to the cold war naval confrontation between the U.S. and the Soviet Union. Regional naval balances in various parts of the world are analyzed. All of the major naval arms control proposals of the cold war period are categorized and analyzed, and the advantages and disadvantages from the perspective of the U.S. are examined.

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PREFACE

This document was prepared in partial fulfillment of the task "Analysis of Nuclear Weapons Security, Arms Control Issues, and Treaty Resource Requirements." The work was sponsored by the Office of the Under Secretary of Defense for Acquisition (Conventional Arms Control and Compliance).

This document contains IDA analyses of the characteristics of naval power and of the naval arms control proposals of the cold war and early Gorbachev periods. This research was done in preparation for the possibility that, once the original CFE Treaty had been completed, the United States would find itself drawn into international negotiations to limit naval forces.

Since the study was originally commissioned in 1990, however, the international political context has changed so radically as to make the prospects for naval arms control negotiations involving the U.S. Navy seem remote. The research was thus brought to a close and documented here to serve as a possible starting point should interest in naval arms control of the type envisioned in that era arise again.

The analyses contained herein were reviewed within IDA but, given their likely future, were not subjected to the rigorous outside review characteristic of IDA research that could be the basis for serious governmental decisions.

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APPENDICES

A. DETAILS OF NUCLEAR-ARMED NAVIES OF THE WORLD
B. DETAILED ANALYSES OF DENUCLEARIZATION PROPOSALS

I. INTRODUCTION

When the study of which this document is a part was conceived, the world was very different than it is today. The cold war, while it had substantially decreased in intensity, still molded the framework on which the defense policy of the U.S. and its NATO allies was built. The Warsaw Pact was viewed as a capable and effective military alliance, and the instability inherent in the large forces deployed on both sides of what was the inter-German border were still seen as the greatest threat to world peace.

The negotiating fora provided by the Conference on Security and Co-Operation in Europe (CSCE) process had produced substantial accomplishments, and promised to produce even more. The Stockholm Conference had resulted in a raft of confidence and security-building measures (CSBMs) that significantly reduced the potential for surprise attack and partially opened the veil of secrecy that had shrouded Warsaw Pact forces and tactics. The Conventional Forces in Europe (CFE) negotiations were in their final stages, and were likely to produce an agreement that would reduce the large Warsaw Pact forces that had posed a threat to the free world for nearly half a century. Negotiations to refine and extend the Stockholm CSBMs had begun in Vienna.

In all of these and other fora, the Soviets had persistently demanded, and NATO had just as persistently rejected, negotiations leading to naval arms control. The Soviets, long unable to challenge the U. S. Navy at sea, had constantly attempted to do so at the conference table. During the waning stages of the cold war, the form of the challenge was typical of Soviet defense planning; quantity was emphasized over quality. A modest stream of Soviet proposals grew into a fusillade emanating from a variety of directions: from every conceivable negotiating forum, from newspaper interviews, from speeches of political and military leaders, and from testimony before the U. S. Congress. U. S. and European defense academics, and even the U. S. Congress, added proposals of their own.

NATO's position was clear. The Madrid mandate that set the terms for the Vienna negotiations established firm barriers against naval arms control. In simple terms, it stated that arms control would stop at the water's edge, with the exception of amphibious exercises and naval activities that were an integral part of a land exercise. However, the Soviets were vigorously attacking the Madrid mandate. They made it clear that there would

be no further limitations on the size and operations of Pact forces in Europe or on ground and land-based air forces CSBMs without parallel progress in naval arms control. The Soviet position was seen as not unreasonable by some of the neutral and non-aligned nations (NNA), and stresses in the solid NATO defense against naval arms control could be detected. Although the barriers of the Madrid mandate had survived the Vienna negotiations, many observers believed that NATO would be forced to pay for further Warsaw Pact reductions with some recognition, if only symbolic, in the arms control arena of the concern and respect that the Soviets had for the power of the U. S. Navy.

It was against such a backdrop that the IDA study on naval arms control was launched. The original study plan envisioned a historical review of naval arms control from the pre-World War II period through the cold war era. The study was to continue with a review of the characteristics of naval power, particularly as they related to U.S./Soviet deployments and capabilities and to naval balances in various parts of the globe. A detailed analysis of all of the proposals that had formed the agenda of the cold war naval arms control agenda was to be the core of the study. The aim of the analysis was to provide a convenient primer detailing the advantages and disadvantages of each of the proposals, because of the expectation that the U.S. would likely be forced to consider some of them seriously in some future arms control forum. Guided by the analysis of the past, the study was to conclude with a view of the future of naval arms control.

The deluge of political upheavals in the former Soviet Union over the past year and a half has rendered that study plan obsolete. In the naval arms control arena, as in many other areas of defense policy, the relationship between the past and the future has become discontinuous. The pressure for naval arms control has disappeared, as have the majority of the issues that generated the pressure. However, in the interests of preserving the historical record and the analyses that were completed before the demise of the Soviet Union, the sections describing the characteristics of naval power and the detailed analyses of cold war naval arms control are presented here. Moreover, some of the proposals analyzed herein may yet resurface, and the regional naval balances will remain of interest to the U. S. as the focus of defense analysis shifts from coping with the global Soviet threat to dealing with regional crises and regional balances of power.

II. CHARACTERISTICS OF NAVAL POWER

A. INTRODUCTION

This chapter was initially written in 1991 when the USSR existed as an organized state and the Soviet Navy was a coherent, powerful maritime force. The USSR was officially dissolved in December 1991 and replaced by the Commonwealth of Independent States (CIS). The Commonwealth is a loose union of eleven of the fifteen republics of the Soviet Union--Latvia, Lithuania, Estonia, and Georgia did not join. Almost all of the Soviet Navy appears to be under control of the Russian Republic, headed by President Boris Yeltsin, although some elements of the Black Sea Fleet may be subordinated to Ukraine. The major naval base in the Black Sea, Sevastopol, is now located in Ukraine although it was considered a Russian city until 40 years ago. The Northern, Baltic and Pacific Fleets are all based on Russian soil and are part of the Russian Navy. Thus, 85-90 percent of the conventional forces of the former Soviet Navy are under Russian control and should properly be called the Russian Navy. The Ukrainian Navy, if it in fact exists, is expected to be a coastal protection force, probably operating only in the Black Sea. The Caspian Sea Flotilla, which is land-locked, may be split between the three Central Asian republics and Russia that border on the the Caspian Sea.

Soviet strategic naval forces are apparently under a loose central command, along with other elements of the strategic forces, believed to be responsive to a Commander-in-Chief—Marshal Shaposhnikov, the last Soviet Defense Minster. Marshal Shaposhnikov apparently reports to President Yeltsin, who has the "nuclear button." Yeltsin has said that he alone has authority to release nuclear weapons but that he will "consult" with the other Presidents of the republics that constitute the Commonwealth of Independent States. Ex-President Gorbachev, in response to the unilateral declaration of President Bush, pledged to remove all tactical nuclear weapons from the Soviet Navy, although no timetable was specified. The location of naval weapons of the Black Sea Fleet is not known; neither is it known whether nuclear-capable ships will be part of the Ukrainian Navy.

The dissolution of the USSR, the potential fragmentation of the Black Sea Fleet, and the nebulous command and control arrangements for strategic nuclear forces must be

kept in mind when reading the discussion of the former Soviet Navy in the remainder of this chapter, particularly in Section E, "Roles and Missions of Soviet Naval Forces." Every effort has been made to be specific in terminology when referring to the naval forces of the former Soviet Union, but precision is impossible due to the evolving political-military situation in that former state.

Section E was planned as a discussion of Soviet force planning, force structure, command and control, operational concepts and doctrine. Much of what was written is still relevant about the former Soviet Navy, regardless of whether the forces are subordinated to the CIS, Russia or Ukraine. The former Soviet Navy has undergone profound changes, the full dimension of these changes is not yet apparent--and the changes continue. It has been reported that force deployments, modernization, operational patterns, training, exercises, etc have all been drastically reduced. Yet, the vast majority of the ships exist and are still capable of maritime operations, even though response time for most units has been lengthened and operational readiness reduced.

B. COMPONENTS OF NAVAL FORCES

Naval forces, as used in this study, include naval ships and amphibious forces and sea-based and land-based aircraft under naval command.

For the United States, naval forces are the U.S. Navy, U.S. Marine Corps, and the U.S. Coast Guard when operating under naval command in wartime. (The U.S.-USSR Incidents at Sea Agreement includes incidents involving the U.S. Coast Guard and Soviet ships.) Both the U.S. Navy and U.S. Marine Corps include sea-based and land-based aviation units. Each USN carrier supports a composite wing of aircraft including intercepter, fighter-attack, bomber, tanker, airborne early warning and anti-submarine fixed wing aircraft, as well as a variety of helicopters. The Marines operate Harriers and helicopters from amphibious ships. The Navy operates a significant shore-based naval air arm including Maritime Patrol Aircraft, strategic command and control aircraft (TACAMO), transport aircraft and helicopters. A Replacement Air Group is maintained as well as an extensive number of training aircraft and a Reserve Air Wing.

The U.S. Marine Corps comprises three Active Marine Expeditionary Forces (MEF), consisting of a Marine Division and a Marine Air Wing, and a reserve division and air wing. Significant portions of the USMC are deployed afloat, but the bulk of the Corps is normally stationed ashore.

The naval forces of the former Soviet Union consisted of the Soviet Navy, Soviet Naval Infantry (SNI) and Soviet Naval Air (SNA). The Soviet Navy was the largest in the world in terms of numbers, and its successor is still generally considered second only to the USN in capability. The SNI is smaller than the USMC, but was augmented in 1991 by three Motorized Rifle Divisions transferred from Soviet Army to Soviet Navy command, presumably to avoid being removed from active service in the Western USSR in compliance with CFE limits. The SNI has only a limited amphibious capability. The SNA consists of Harrier-type aircraft and helicopters stationed aboard a relatively small (compared to the USN) carrier force and a significant number of land-based attack, MPA and ASW aircraft. Composition of the air wing aboard the new conventional carrier--the Admiral Kuznetsov--is not known. Subordination of the ships of the Frontier Guards of the KGB may have changed since the August 1991 coup attempt and the subsequent breakup of the Soviet Union.

This study focuses primarily on the bilateral aspects of the previous U.S.-USSR naval competition, so only the U.S. and former Soviet Navies are discussed in detail, although Section F of this chapter contains a summary of regional navies and all nuclear-capable navies are discussed in Section G and Appendix A. The definition of naval forces used in this section applies equally to navies of other countries that operate ships, marines/naval infantry and aircraft, e.g., U.K., France, Italy, Netherlands, Spain, China, etc. Some of the proposals analyzed in Chapter III and Appendix B went beyond the bilateral U.S.-Soviet context, but emphasis is on the navies of the United States and the former Soviet Union.

C. PURPOSES OF NAVAL FORCES

Naval forces, as one component of a nation's military power, are traditionally used either alone or in conjunction with other armed forces to protect or advance a nation's interest in a variety of ways, e.g. deterrence, strategic attack, diplomatic pressure, power projection, protection of economic interests, blockade, etc. The Persian Gulf War, including the buildup of forces and imposition of sanctions on Iraq, demonstrated the full range of naval capabilities, with the exception of strategic nuclear attack.

Protection of economic assets is a major task of naval forces in both peace and war. This protection is particularly important for the United States as a maritime nation. With the bulk of U.S. trade arriving and departing the United States by sea, two states connected to the continental U.S. by sea, and major allies overseas, the need for naval forces is

apparent. The Commonwealth (USS), although largely a continental power, conducts some of its commerce by sea, including considerable trade between European Russia and the Russian Far East. Other nations, including our major allies, depend on seaborne commerce for much of their food, energy supplies and industrial goods.

Peacetime uses of navies include deterrence, not only of strategic attack but also of attacks on commercial maritime traffic. In recent years, naval deterrence has been focussed on strategic nuclear submarines as a component of a nation's overall deterrent posture. Forward naval presence shows a nation's interest in protecting its commerce and citizens, supporting its overseas allies and, in the case of the United States, maintaining regional stability. Presence includes port visits; exercises and training with other nations; transits through selected areas; contingency deployments to "show the flag" (some might call it "gunboat diplomacy"); home porting overseas; and relatively permanent deployments such as the U.S. Sixth Fleet and Soviet Fifth Eskadra in the Mediterranean, and the U.S. Seventh Fleet in the Far East. Wartime roles for naval forces include sea control, sea denial, projection of power ashore, territorial defense and strategic retaliation if deterrence fails. Strategic retaliation will not be discussed in this chapter, since the focus of this report is on general purpose naval forces. The U.S. Navy is probably the only navy in the world capable of exercising all of the peacetime and wartime missions outlined above.

Sea control includes the ability to freely use the seas for one's own purposes. Sea denial is the ability to deny an enemy the use of the seas. In either case, the control or denial is over limited sea areas and for a limited period of time. To be most effective, sea control is conducted in those areas of critical importance such as the strategic SLOCs, and as far forward as possible in areas that threaten an enemy. Sea denial is most effective in interdicting SLOCs to prevent the deployment of forces, including resupply and reinforcement operations. Sea control includes the destruction of enemy naval forces, the escort and protection of friendly shipping, blockade and mining. All of these missions were demonstrated in Desert Shield/Desert Storm--the first three by the U.S. and Coalition forces, the latter by Iraq.

The concept of power projection is principally related to projecting naval power ashore, and is normally accomplished by amphibious landings, carrier launched air strikes, strategic nuclear missiles, naval gunfire, or sea-launched cruise missiles (nuclear or conventional). Power projection in peacetime includes projection of influence by physical presence either in support of an ally or to influence a potential enemy. In the Persian Gulf,

the U.S. and its allies projected power in peacetime (Desert Shield) and in wartime (Desert Storm).

A major mission of Soviet naval forces, as discussed in Section E of this chapter, was defense of the homeland, i.e., territorial defense. The Soviet Navy, SNI and SNA would have been involved. Naval forces of the former Soviet Union will probably be employed in defense of the homeland, regardless of the chain of command. Of course, if U.S. territory were to be threatened, U.S. naval forces would be similarly employed.

The naval warfare tasks which would be integrated into support of the concepts described above include anti-air warfare, anti-submarine warfare, anti-surface ship warfare, strike warfare, amphibious warfare, mine warfare, and supporting warfare tasks such as special operations, ocean surveillance, electronic warfare, C3, intelligence, and logistics. Integration of air, surface and submarine forces is the key to effective maritime warfare. For the United States, these naval operations are conducted primarily by sea-based forces, but often with the participation of land-based air forces. Logistic operations which are essential to the conduct of naval operations are provided by a combination of the self-sustaining capability of combatant ships, and by combat logistic support ships, organic logistic aircraft (both fixed and rotary wing), strategic air and sea lift, depots, and other facilities ashore.

D. ROLES AND MISSIONS OF U.S. NAVAL FORCES

1. Wartime

Each military service is structured to perform specific missions in implementing the overall national military strategy of the United States. That strategy is based on four principal elements: strategic deterrence, forward presence, crisis response and force reconstitution. Maritime superiority remains essential to successful implementation of each element of that strategy.

U.S. Naval forces are structured to provide five fundamental military capabilities. First, control of the sea assumes that the United States can use the oceans for economic and military purposes while denying or severely limiting such access to opponents in time of crisis or war. Second, maintenance of significant forward deployed naval forces is one way by which the United States has demonstrated a forward presence. Third, naval forces project power ashore--with air power, naval gunfire, cruise missiles and Marine forces--either in support of sea control or a land campaign. Fourth, the Navy provides the sea-

based leg of the strategic triad. Fifth, the Navy and the Maritime Administration provide strategic sealift to support joint military operations. In keeping with the focus of this report, only the first three of these missions will be discussed below.

Gaining control of the battle space in three dimensions--in the air, on the sea, and under the sea--is a prerequisite for power projection. The Navy is responsible for achieving and maintaining the sea control and air superiority required for introduction of military forces, and is structured to carry out that mission. Power projection cannot be sustained without control of the sea.

Maritime superiority, i. e., control of the sea, and freedom of the seas, are indispensable to crisis response. Regional agreement to restrict the size or frequency of naval operations could hinder a rapid movement of force that might damp down a developing crisis.

U.S. Navy general purpose forces can project power ashore through air strikes (conventional or nuclear), ship-launched cruise missiles (conventional or nuclear), naval gunfire and Marine Corps amphibious assault. All of these conventional capabilities were employed, or threatened in the case of amphibious assault, in support of Desert Storm. These power projection operations can be conducted by maritime forces alone or in support of joint and combined operations, as was the case in Desert Storm.

2. Peacetime

As an integral part of the U.S. military strategy of forward defense, the Navy has maintained a significant forward presence since World War II. Forward deployments promote regional stability and maintain readiness for crisis response. President Bush reaffirmed forward presence and crisis response as fundamental pillars of U.S. strategy in a speech at Aspen, Colorado on 2 August 1990.

Forward-deployed naval forces are self-sufficient and combat ready, capable of remaining on station for months, independent of infrastructure ashore. The unique character of naval forces gives the President a number of immediate options for responding to a crisis, as demonstrated in the Persian Gulf:

- Readily available forces to operate from over the horizon, independent of politically sensitive operating bases ashore;
- A mechanism for allied naval involvement, if a multinational operation is required;

- A capability to enforce economic sanctions imposed by the U.N. or unilaterally by the United States; and,
- A flexible, mobile force that can enable the insertion of ground forces and tactical air power that must operate from within the affected area.

E. ROLES AND MISSIONS OF SOVIET NAVAL FORCES[1]

1. Introduction

Naval forces of the former Soviet Union were designed to support the multitheater goals and objective of Soviet military strategy by maintaining a large inventory of ballistic missile, cruise missile and attack submarines, surface combatants, combat and reconnaissance aircraft, and supporting auxiliaries. These forces regularly operated at sea, often at great distance from home waters, although out-of-area operations have declined in the last six years. Soviet forces trained in the maritime environments where they planned to fight in future conflicts. Observation of their operational performance prior to the breakup of the Soviet Union showed them to be a professional, disciplined force ready to pursue the military and political tasks assigned to them.

The most recent edition of the Soviet Military Encyclopedia Dictionary described the Soviet Navy as being capable of:

> ...delivering nuclear strikes against enemy ground targets, destroying his naval forces at sea and in their bases, disrupting enemy ocean and sea communications and protecting their own side's communications, joint operations with ground forces in conducting operations in continental theaters of military operations, conducting amphibious landing and preventing amphibious landings by the enemy, transporting troops and material, and fulfilling other missions.

This definition indicated that the Soviet Navy was configured for, and tasked to perform eight specific missions, i.e., nuclear operations, destruction of an opposing fleet, SLOC interdiction (sea denial), SLOC protection, joint operation with the other Soviet military forces, amphibious operations, defense against amphibious operations and resupply/reinforcement. The notion of joint operations is particularly important. In Soviet military combat operations, the Navy, like the other branches of the armed forces, was viewed as an integrated part of a combined arms team.

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[1] Much of the information in this section is based on the most recent, but still unpublished, revision of Understanding Soviet Naval Developments, a publication of the Office of Naval Intelligence. However, the interpretation of this information is the responsibility of the IDA project team.

There is nothing unusual about this list of missions except that they could describe the missions of the U.S. Navy. Also, this list belies the claim by the Russians (USS) and many analysts that the Soviet Navy was defensively oriented in contrast to the offensively oriented U.S. Navy. Nuclear operations, destruction of an opposing fleet, SLOC interdiction, joint operations, amphibious operations and resupply/reinforcement are all offensive operations. However, the Soviet Navy never deployed as high a fraction of its fleet into forward areas as the U.S. Navy traditionally deployed, and forward deployment has been steadily reduced since 1985-86, with major reductions in out-of-war area operations noted since the demise of central power in the former USSR.

It is too early to tell precisely how the dissolution of the Soviet Union and creation of the CIS (USS) will change the basic missions and orientation of the former Soviet Navy. Removal of tactical nuclear weapons from naval forces will certainly lead to a reappraisal of naval strategy, which depended to a far greater extent than U.S. strategy on the use of tactical nuclear weapons at sea. The reported continued construction of carriers, SSBNs, surface ships, attack submarines--SSNs and diesel powered--seems to indicate that Russia (USS) intends to maintain its position as the second most powerful navy in the world, and the largest in the total number of warships. However, the Director of Central Intelligence and the Director of the Defense Intelligence Agency testified in January 1992 that military production in the CIS (USS) was reduced by 80 percent in the last quarter of 1991. This may indicate that continued modernization of the former Soviet Navy may be ending or at least drastically reduced.

2. Naval Missions of the Former Soviet Navy

a. Wartime

1. SSBN Protection/Pro-SSBN Operations

Most of the Soviet SSBN force was expected to operate from heavily defended bastions, from whence their long-range SLBMs could strike targets in the United States. The bastions may well be under ice in some locations, and were expected to be defended by much of the SSN force, mines, naval air and surface ASW units deployed along the most likely penetration roles by Western SSNs. The Soviets devoted much of their naval arms control efforts toward limiting the size and capability of forward deployed U.S. forces, especially carriers and SLCM-equipped surface ships and submarines, and limiting areas

where ASW forces might operate. Success in these efforts would have enhanced Soviet pro-SSBN operations.

Analysts differed in assessing the number of SSNs that might have been assigned to the pro-SSBN role, since SSNs would not only be the most effective weapon in SLOC protection but also would make a valuable contribution to defense of the homeland, especially in anti-carrier warfare (ACW) and anti-SLCM operations. Determination of the weight of effort for these three missions would probably have been determined by the warning time available, anticipated duration of the war, the character--nuclear or non-nuclear--of the war, and progress of the battle in the decisive land theaters.

2. Defense of the Homeland

The Soviet Navy would have been required to eliminate naval threats within strike range of national territory, particularly those enemy naval units that posed a nuclear threat to the Soviet Union. These operations would have included anti-SSBN, anti-SLCM (submarine and surface launched), anti-carrier and antiair warfare. In wartime, general purpose forces would have deployed as far as 1,600 nautical miles from the Soviet Union in an attempt to control those waters and to deny to the United States the ability to conduct operations there.

SSGNs, SSNs, land-based Soviet Naval Aviation and Soviet Air Force strike aircraft equipped with air-to-surface missiles, and aircraft carrier and surface combatant action groups would have comprised the general purpose forces. A layered defense, reaching out from the SSBN bastions over a thousand nautical miles, would have been provided to protect Soviet territory and strategic naval assets. It was estimated that the Soviets might have dedicated up to 25 percent of their modern attack submarines to the anti-SSBN role in wartime.

The major problem for the Soviet Navy concerning U.S. aircraft carrier battle groups (CVBGs) in wartime would have been to prevent them from coming within striking distance of the Soviet Union. The Soviets anticipated that U.S. CVBGs might take early offensive actions in the Norwegian, North, and Mediterranean Seas and northwest Pacific Ocean. The Soviets would then employ coordinated anti-carrier strikes from a number of different platforms, e.g., attack submarines and long-range strike aircraft (from both Soviet Naval Aviation and Soviet Air Force units) to counter this threat. Recent evidence suggests the Soviets believed their ACW mission was becoming more difficult in the face of steady improvements in the power and operational sophistication of U.S. CVBGs. The Soviet

Navy had been expanding its ACW capabilities to include coordinated operations between surface units and sea-based aircraft at greater distances from the homeland.

Countering cruise missile-equipped surface ships would probably have been addressed much like Soviet anti-carrier operations. Enemy cruise missile-equipped submarines would have required the Soviet Navy to expand and enhance strategic ASW operations. In both cases, the Soviets would have needed to extend operations farther from the Soviet homeland to engage U.S. forces. Additionally, the Soviet Navy would have played an increasingly important role in the growing air defense requirements of the Soviet Union. The Navy's principal contribution would have been to increase effective acquisition and intercept capability against penetrating strategic aircraft. Soviet surface combatants deployed along the seaward threat axes would have extended radar coverage and allowed employment of surface-to-air missiles to engage aircraft and missiles farther from Soviet territory. The Navy's operations were to be coordinated with air defense forces to add increased overall wartime capability.

Prior to the recent U.S. and Soviet decisions to eliminate tactical nuclear weapons at sea, the USSR was developing new SLCMs with the capability to conduct strategic offensive and tactical missions. The SS-N-21, similar to the U.S. Tomahawk, is capable of being launched from a torpedo tube, has a 1,600 nautical-mile range and carries a nuclear warhead. A two-year improvement program for the SS-N-21 was recently completed, which probably focused on improving guidance and propulsion systems. Construction of nuclear-powered attack submarines, if continued under the CIS (USS), will add to the SS-N-21 capable units. Work is believed to be continuing on a larger, supersonic SLCM, the SS-NX-24, which could be used in intercontinental strikes. Status of these developmental programs is not known at this time.

3. Amphibious Operations

The Soviets maintained a credible short-range assault force of amphibious ships and naval infantry (Soviet Naval Infantry or SNI) to help seize key coastal areas in support of ground operations. Soviet military doctrine called for the small naval infantry force to be augmented by army units trained in amphibious operations, some of which were placed under naval command in 1991. Several army divisions periodically practiced amphibious landings, and a large, readily adaptable merchant fleet (particularly roll-on/roll-off ships) was available to supplement the amphibious ships in supporting these movements.

Airborne operations were often conducted in conjunction with amphibious exercises. One SNI regiment is based in the Black Sea and may be placed under Ukrainian control.

4. SLOC Interdiction/Sea Denial

The principal focus of this effort would have been to block the reinforcement and resupply of Allied/U.S. forces in Europe and Asia. The priority assigned to this mission would have depended on the success achieved in fulfilling other higher priority and competing strategic missions, especially strategic strikes and defense of the homeland. The extent of the sea denial mission would have been determined by the number of SSNs that could have been freed from higher priority tasks, along with Soviet perceptions of the likely nature and length of the conflict. Especially in the context of a protracted conventional war, disruption of SLOCs could cause critical shortages for enemy ground and air forces and would have a direct impact on the battle ashore. SLOC interdiction would be an element of a larger mission for disrupting European theater lines of communication.

Interdiction of open-ocean SLOCs outside the Soviet sea denial perimeter (approximately 800 nautical miles) would initially have been conducted by relatively few forces, so long as U.S./NATO carrier battle groups and other nuclear-capable units constituted a threat, or until resupply SLOCs became of strategic importance to the outcome of the conflict. If the Soviets had calculated that their strategic missions could be fulfilled with fewer submarines and aircraft, or if NATO's reinforcement and resupply effort during pre-hostilities warranted an intensified anti-SLOC campaign at the outset of war, the Soviets could have assigned more submarine and air assets to open-ocean SLOC interdiction from the beginning of hostilities. Otherwise, initial Soviet anti-SLOC efforts would principally have involved mining and bombing of European and Far Eastern SLOC termini by submarines and aircraft. Merchant ships operating in approaches to resupply ports and areas in or near war zones also would have been attacked.

b. Peacetime

Naval forces of the former Soviet Union were used for a presence mission, but to a lesser extent than the USN. The Soviets maintained a continuous naval presence in the Mediterranean, the Fifth Eskadra, beginning in the early 1960s. This force varied in size, reaching a total of over 90 units in the 1973 Arab-Israeli war, but normally numbered 20-30 ships. Other Soviet deployments occurred in the Caribbean, western Africa

(Luanda), the Red Sea (Dahlak Island and Aden), the Persian Gulf and Indian Ocean, Vietnam (Cam Ranh Bay), and the Northwest Pacific where a major Soviet Fleet was based. These out-of-area visits and exercises decreased remarkably beginning in the mid-1980s, and are continuing to decline at an even faster rate since the fall of 1991.

Soviet ships operated in the Persian Gulf during the 1990-91 crisis in support of UN sanctions against Iraq, but neither engaged in combat operations nor operated under U.S. control. (Operations of all naval forces in the Gulf were coordinated to avoid interference, but units remained under national command.)

Ships of the Soviet Navy made far fewer port visits to foreign countries than did U.S. ships, but exchanged visits with U.S. Navy ships in Soviet and U.S. ports in 1990 and 1991.

F. NAVAL COMPARISONS: GLOBAL AND REGIONAL

1. General

The United States is the foremost naval power in the world today, and is likely to remain so for the foreseeable future, although the magnitude of U.S. naval superiority is less well defined. The strength of the USN was measured against that of the Soviet Navy for many years, and in force planning scenarios it was generally assumed that the USN might be forced to deal with other, lesser contingencies while simultaneously undertaking operations against the Soviets in the North Atlantic, Mediterranean and North West Pacific. It was widely believed that the USN did not have the resources to accomplish all of its probable missions if called upon to undertake them simultaneously. Therefore, the Maritime Strategy and contingency planning by the CINCs called for sequential operations.

It is reasonably clear that the USN need not plan for this worst-case scenario, after the "revolution of 1991." Throughout Operations Desert Shield and Desert Storm, for example, the USN was able to devote six carriers to one region without fear that they would be needed elsewhere, largely due to a cooperative attitude on the part of the Soviet Union. Capabilities of the USN, which were perhaps insufficient to meet the exigencies of the Cold War, should provide reasonable confidence that the United States Navy can meet the reduced demands of the coming decades, provided that the Navy is not cut below the level required for likely regional contingencies.

The U.S. Navy is not invulnerable. Many nations possess the military forces to inflict damage on U.S. naval forces and to temporarily disrupt, or complicate, in a regional context, operations of the U.S. Navy. Continued proliferation of advanced weapons technology, particularly modern submarines and sophisticated anti-ship missiles, will increase the potential threat to regional naval operations of the United States.

2. Global Naval Forces

When the Royal Navy was the premier world Navy, the standard used by the Admiralty to plan future growth was that the Royal Navy be able to defeat the combined fleets of the next two strongest naval powers. The British maintained this standard until the eve of the First World War, when the simultaneous growth of the navies of Germany and the United States proved to be more than British industry--and budgets--could match.

With some qualifications, it seems likely that the present USN has met a similar standard, if one counts only fleet tonnage of principal surface combatants, as shown in Figure 1.

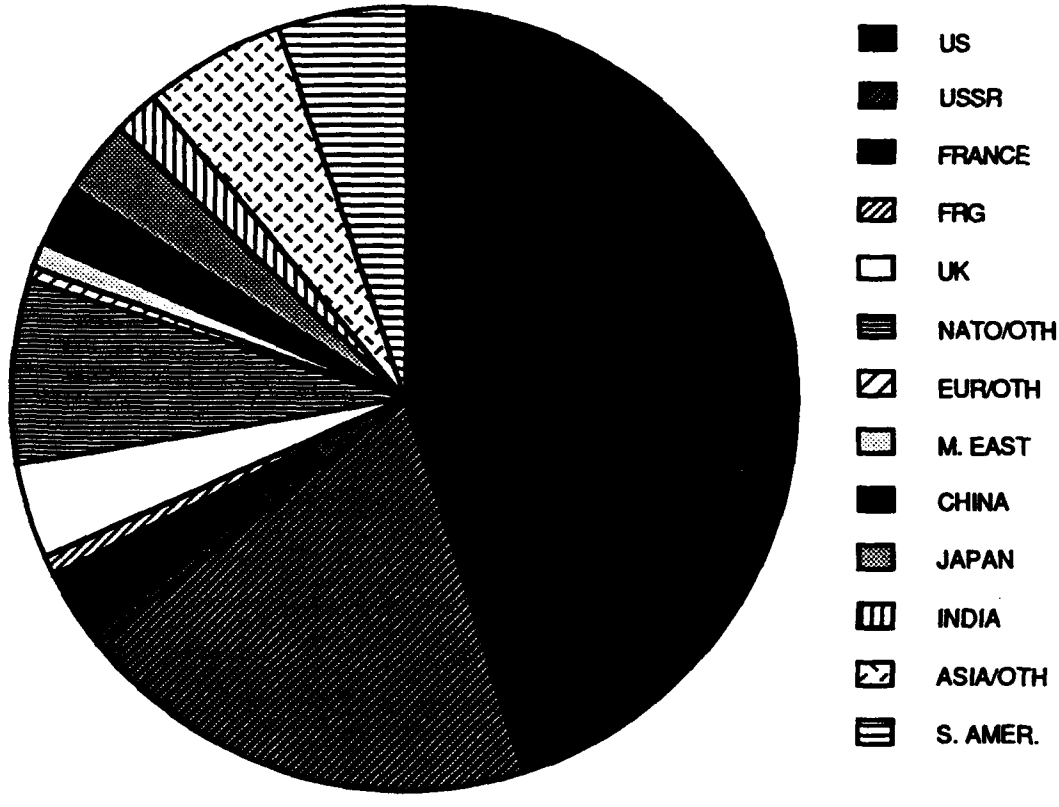

Figure 1. Total Fleet Tonnage

The aggregate tonnage of the USN's major surface combatants is more than twice that of the former Soviet Navy, and is approximately ten times that of the Royal Navy. Indeed, the fleet tonnage of the USN is roughly equal to that of all the other navies of the world combined. However, as with the use of any aggregate measure, the use of fleet tonnage as a measure conceals certain facts that undermine, if only slightly, the conclusion that the USN has maritime supremacy. First, the overwhelming U.S. advantage in fleet tonnage is due to the large size of many U.S. ships (in particular U.S. carriers, which have no real counterparts in any other navy). Second, many nations possess significant numbers of modern diesel/electric submarines. Third, dominance at the global level does not necessarily translate into invulnerability at the local level. While perhaps only a few nations could defeat a single carrier task force (much less a multi-carrier task force), several nations could inflict significant damage upon that carrier task force operating relatively close offshore. This will become increasingly true as advanced naval weaponry proliferates throughout second and third world nations.

U.S. ships are, on average, more heavily armed than those of other navies. The bulk of the U.S. fleet consists of modern warships equipped with advanced naval weaponry; the same cannot be said of the navies of the USSR, China, India, or Brazil (or of any of the smaller navies of the world, many of whom operate second-hand U.S. or Soviet ships) (Figure 2).

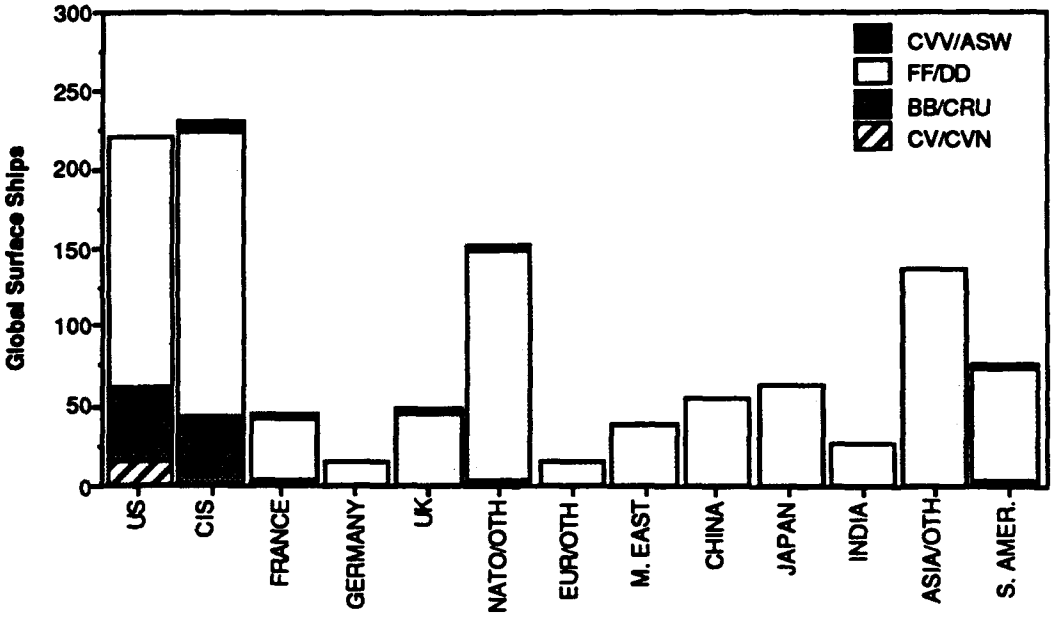

Figure 2. Principal Surface Combatants: Major World Fleets

Only three of these nations, the CIS, the U.K., and France, are capable of global operations, and even then, for the most part, this ability is limited. While neither the ex-Soviet Navy, nor the navy of any other country, poses any real global threat to the USN, these navies must be considered significant in a local context. The Russian (USS) Navy, certainly, can challenge (and possibly defeat) some elements of the U.S. fleet that might be sent into its home waters. The ability of the other nations to resist the USN is perhaps less certain, even in their home waters. Nonetheless, given the length of time necessary to concentrate the widely dispersed naval strength of the U.S. Navy, immediate local superiority of the USN cannot be taken for granted. Consequently, these countries possess a potential to temporarily thwart or disrupt some U.S. naval operations.

This is especially true, given the large number of nations that possess significant numbers of modern submarines. Figure 3, Global Submarines, shows the distribution of submarines throughout the world.

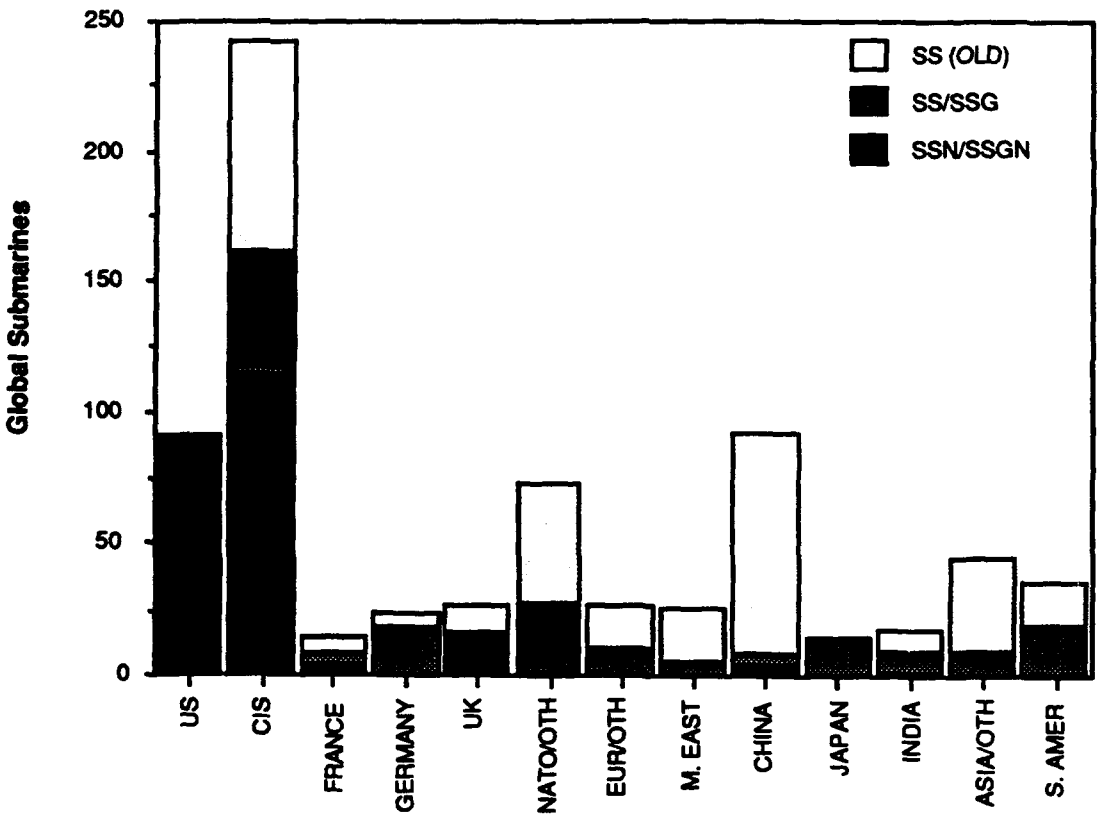

Figure 3. Global Submarines: Major World Fleets

It can be seen that in this aspect of naval power, the U.S. does not dominate the world in quantity, although U.S. submarines are more capable than those of any other country. The former Soviet Union maintained a larger submarine fleet than does the U.S., deploying not only more nuclear submarines but also a substantial number of modern diesel submarines. Eight other countries can each deploy more than ten modern submarines.

The existence of these submarines does not challenge the global primacy of the USN. With the exception of the CIS (USS), no single country maintains a modern submarine force that is larger than twenty percent of the U.S. submarine force. Moreover, the majority of these non-Soviet submarines are diesel, and, in the absence of a technological breakthrough, the range of diesel submarines is limited. However, the local threat to U.S. naval operations cannot be dismissed. Modern conventional submarines are quite difficult to detect, and tend to operate in shallow waters, where normal ASW techniques do not work as well. The proliferation of these submarines throughout the second and third worlds could give many nations the capability to disrupt some U.S. naval operations

3. Regional Naval Balances

The U.S. Navy is, of course, much larger than any regional Navy, and it is extremely unlikely that the U.S. would ever engage the majority of these nations with more than a fraction of its total naval resources. To develop regional comparisons discussed below, it was assumed that a four carrier task force would be deployed against potential Asian opponents; a three carrier task force in the Middle East; and a two carrier task force in the Central and South American region. Given this division of forces, the present USN could probably engage in simultaneous operations in each of these regions, but would then probably not be able to engage in significant operations in European waters. Reductions in carriers will make simultaneous operations extremely difficult. A notional U.S. carrier task force, consisting of one carrier, one to two cruisers, and six to seven destroyers or frigates, was used. Although attack submarines would not necessarily operate as part of the carrier task force, it was assumed that attack submarines would be deployed in relation to the number of assigned carriers (roughly 2-3 submarines per carrier).

The results of this comparison showed that in each of the three examined regions, the specified carrier task force was the dominant naval force in the region, both in numbers of principal surface combatants and in the capability of attack submarines. Moreover, in

many cases, the air power associated with the carriers was superior to that possessed by the air forces of a large number of nations.

4. Asia

Many of the countries of Asia maintain relatively large surface fleets as shown in Figure 4.

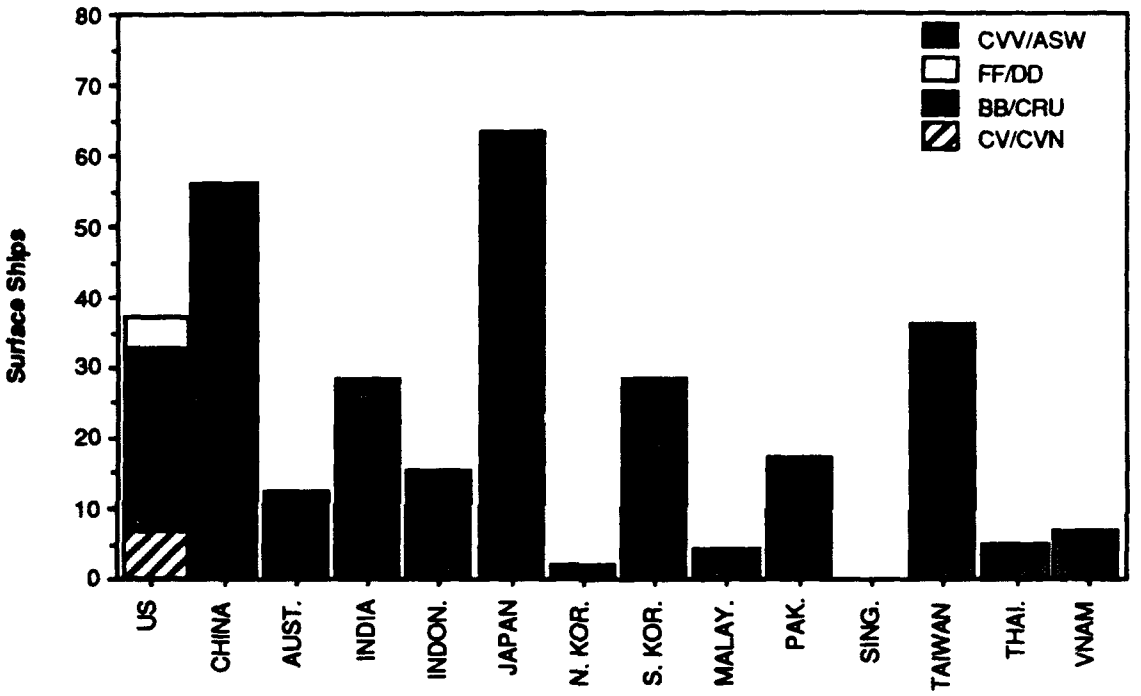

Figure 4. Regional Naval Forces: Surface Ships, Asia (Notional U.S. Four CVBG)

The surface navies of both China and Japan would outnumber the surface ships associated with the four carrier task group. Moreover, three other nations, India, Taiwan, and South Korea, maintain navies consisting of over twenty-five principal combatants, although many are old and verging on obsolescence. However, with the exception of two VSTOL/helicopter carriers owned by the Indian navy, the navies of the Asian countries are based around small ships that cannot match the firepower of the larger U.S. ships.

While a number of Asian nations maintain large submarine fleets (see Figure 5), the bulk of these submarines (many of which are of Soviet origin) are old and verging upon obsolescence. When these older submarines are discounted, only Japan, India, and China own more than ten modern attack submarines. Figure 5 displays only the submarines that might be deployed with the notional four carrier battle group. The U.S. could, in addition, deploy many more of the approximately 40 SSNs based in the Pacific area.

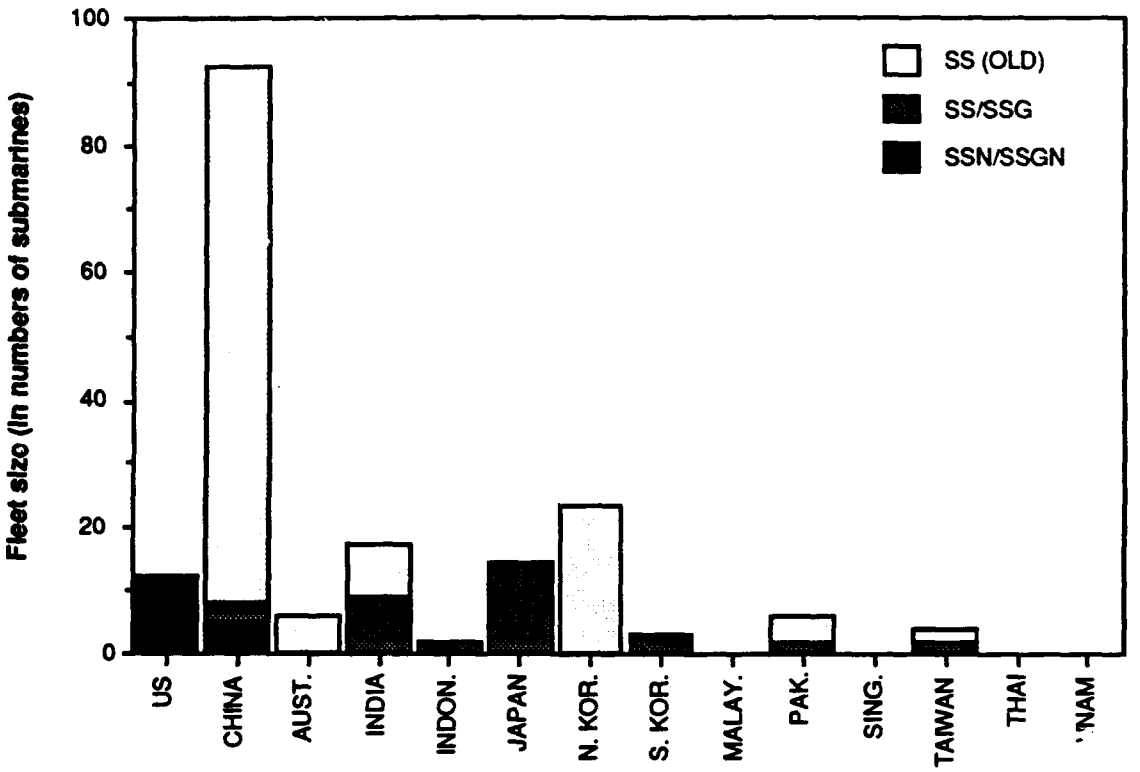

Figure 5. General Purpose Submarines: Asia (Notional U.S. Four CVBG)

While the size of the Chinese air force (see Figure 6) dwarfs the number of aircraft associated with the four carriers, the air assets of the carrier task force compare favorably to those of the remaining Asian countries. In the case of China, not all Chinese aircraft could be assembled to counter the CVBGs, many of the aircraft are old and inappropriate for attacks against naval forces, and not all have the range to reach the carriers. Of course, not all USN aircraft could be available at one time.

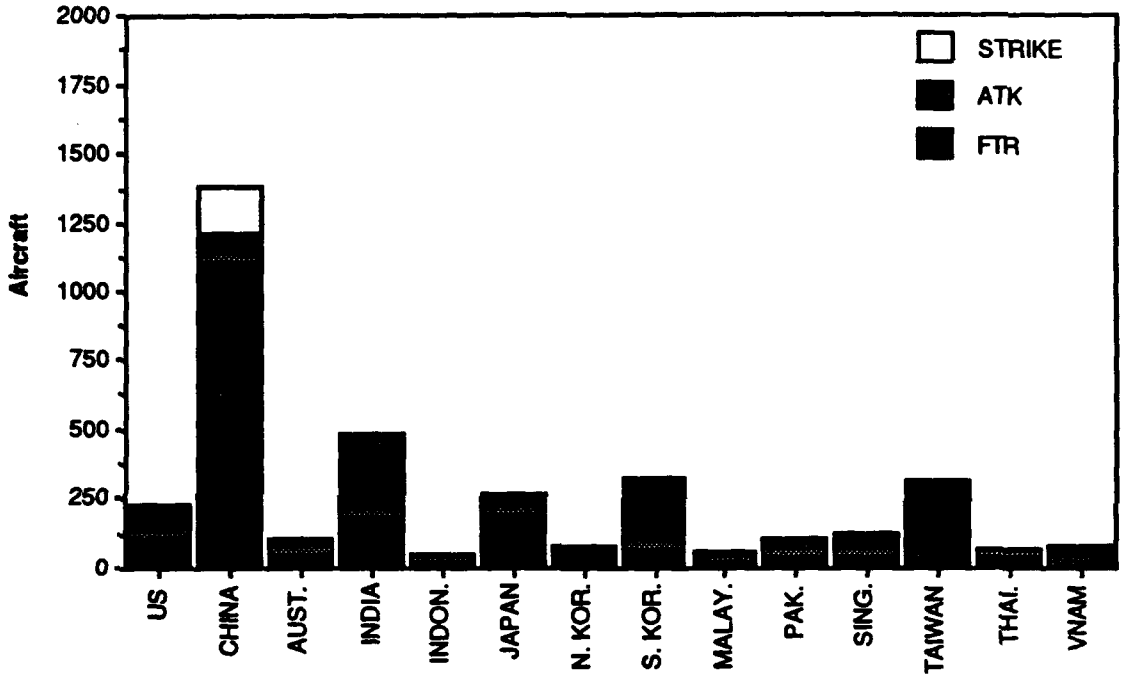

Figure 6. Regional Air Forces, Asia (Notional U.S. Four CVBG)

5. Middle East

There are no countries in the Middle East that maintain large navies. As can be seen in Figure 7, Surface Ships Middle East, no country owns more than ten surface combatants.

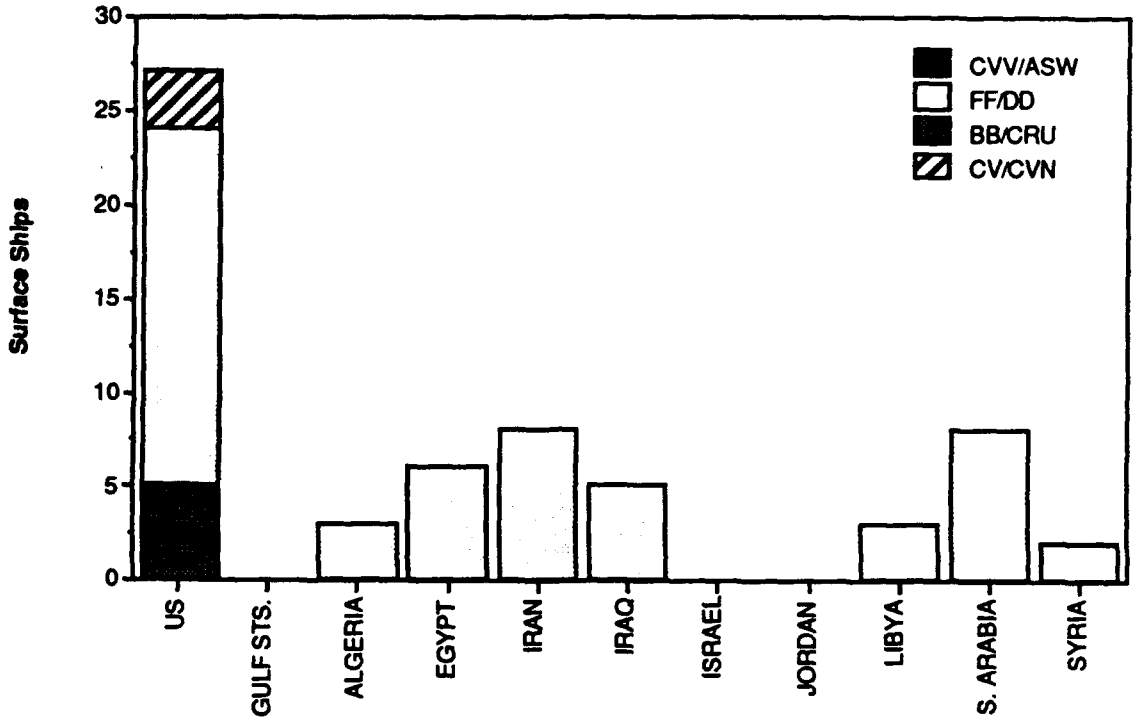

Figure 7. Regional Naval Forces: Surface Ships, Middle East (Notional U.S. Four CVBG)

Figure 8, General Purpose Submarines, Middle East, shows that only Egypt owns more submarines than the notional U.S. three CVBG force would deploy. None of the submarines in the navies of the Middle East is nuclear, but the relatively shallow water and confined sea areas could make diesel submarines more effective than they would be in the open ocean.

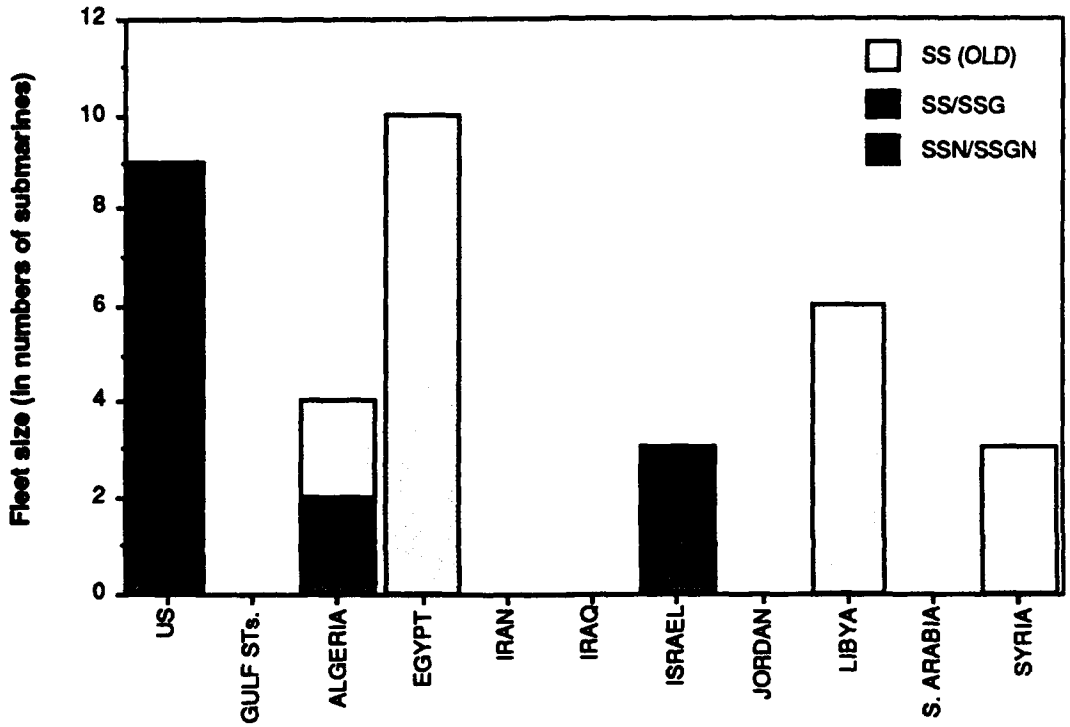

Figure 8. General Purpose Submarines: Middle East (Notional Three CVBG)

Land-based aircraft pose a potentially serious threat to naval forces, and the nations of the Middle East possess large inventories of very modern, very capable aircraft (Figure 9). Additionally, the acquisition of sophisticated surface-to-surface missiles, like the Exocet, could make for hazardous operations close to the shore. The air forces of six nations (Egypt, Israel, Libya, Saudi Arabia, Syria, and possibly Iraq) are larger than or are roughly comparable to the number of aircraft deployed onboard the notional three carrier task force. Not all of these aircraft could be brought to bear on the CVBG force, and it is likely that some of the regional air forces would be assisting the United States, as occurred in Desert Storm. Additionally, USAF land-based aircraft would probably be deployed to the area and employed in any conflict.

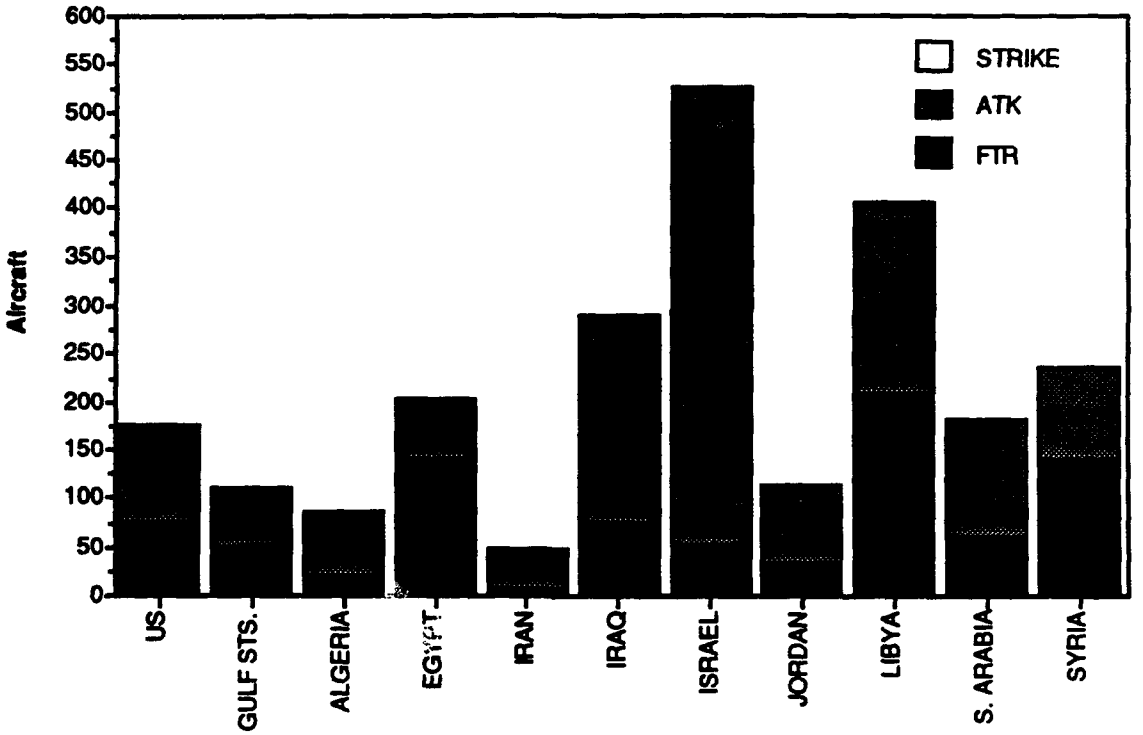

Figure 9. Regional Air Forces, Middle East (Notional U.S. Four CVBG)

6. Central and South America

The navies of Central and South America, while not as large as those of European or Asian nations, are sizable in comparison to those of other second and third world countries. Four countries, Argentina, Brazil, Chile, and Peru, own more than ten principal surface combatants each, as shown in Figure 10. Moreover, unlike many other of the smaller naval powers, each possesses at least one larger ship (either a cruiser or small carrier obtained second-hand from the British).

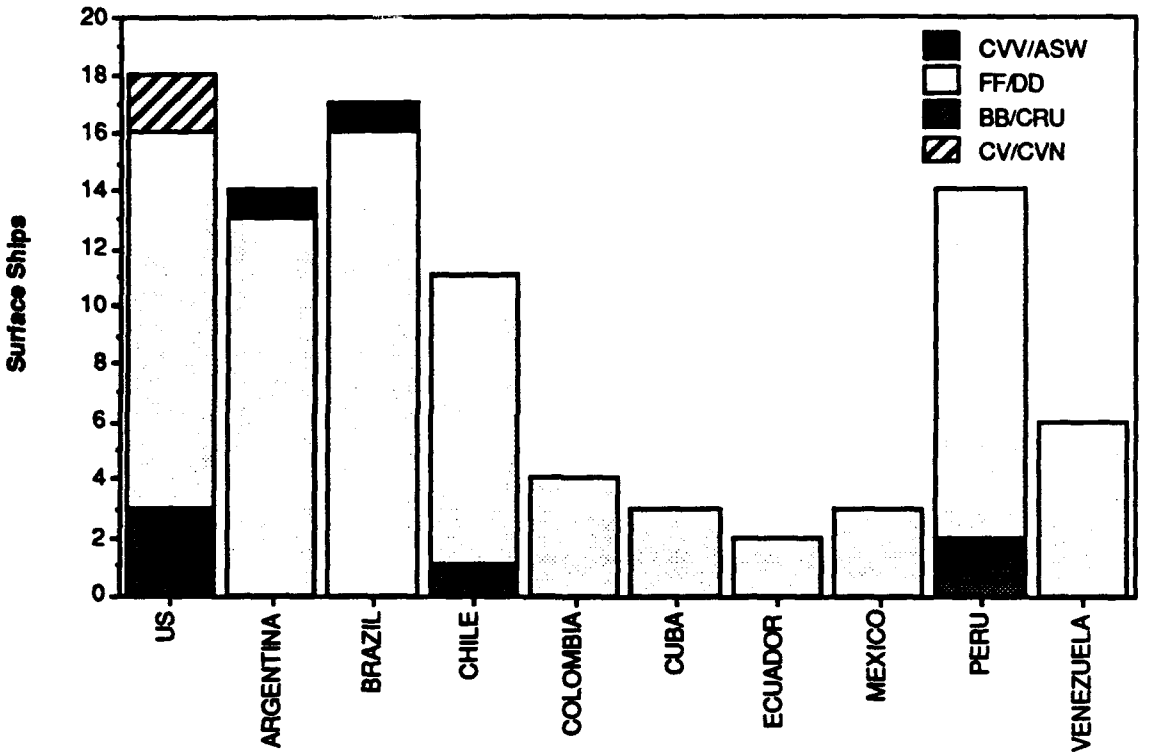

Figure 10. Regional Naval Forces: Surface Ships, Central and South America (Notional U.S. Two CVBG)

Although many of the countries of this region own at least one modern attack submarine (see Figure 11), no country maintains a submarine fleet comparable to that associated with the two carrier task force. The U.S. carrier task force would be the dominant naval force in the region, and would be larger and more powerful than any one of the regional navies, or even any likely combination of navies.

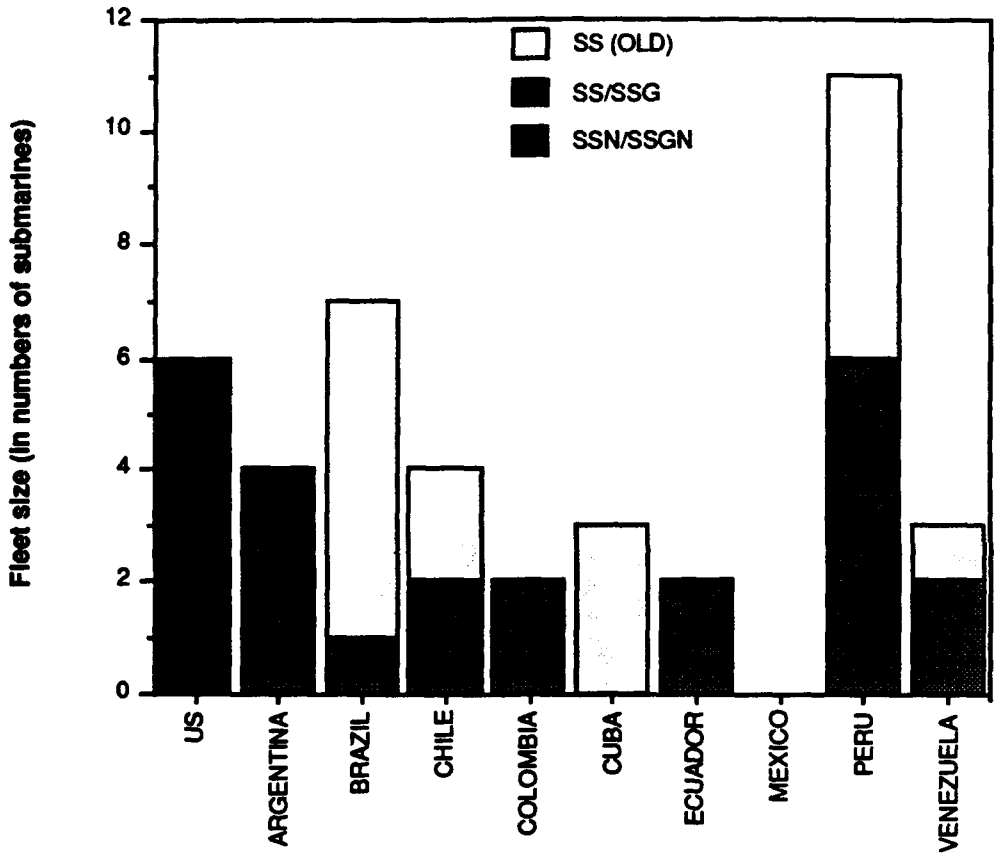

Figure 11. General Purpose Submarines: Central and South America (Notional Two CVBG)

Figure 12, Regional Air Forces, Central and South America, shows that the number of combat aircraft assigned to a notional two carrier battle group is substantially larger than those maintained by any of the nations in this region. Moreover, the USN aircraft are more modern than the majority of aircraft in the area.

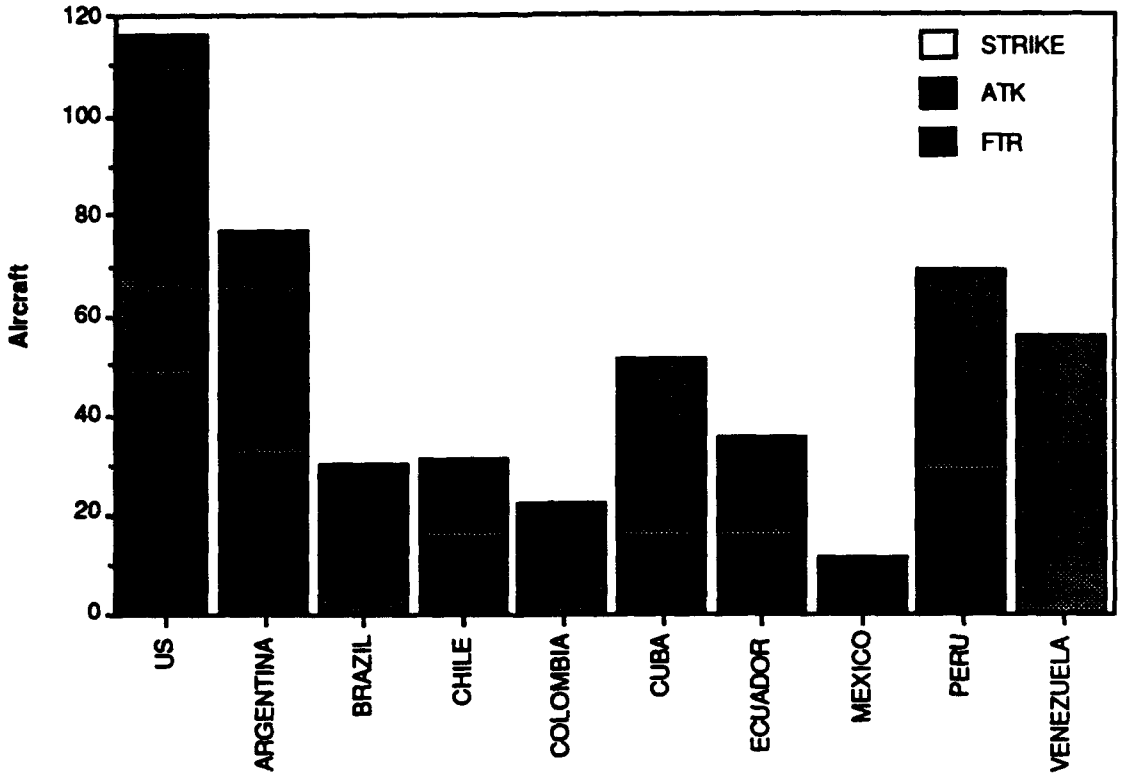

Figure 12. Regional Air Forces, South America (Notional U.S. Four CVBG)

G. NUCLEAR-ARMED NAVIES OF THE WORLD

The largest and most capable nuclear naval forces are those of the United States and the former Soviet Union, both of which possess significant numbers of modern strategic and tactical nuclear weapons based at sea and ashore. Other known nuclear-capable navies are those of the United Kingdom, France and China, with the U.K. and French navies possessing both tactical and strategic naval weapons. This study deals almost exclusively with tactical nuclear weapons believed to be operational in sea-based or land-based components of naval forces, although some proposals analyzed in Chapter III and Appendix-B cover potential operational constraints on strategic submarines and missiles,

e.g., protected SSBN bastions, ASW-free zones, nuclear-free zones, missile stand-off zones, etc.

On 27 September 1991, President Bush announced that all tactical nuclear weapons unilaterally would be removed from ships and land-based naval aircraft. President Gorbachev made a similar declaration on 6 October, although no deadline for completion was announced. All U.S. naval nuclear weapons will be removed in accordance with normal deployment cycles, which means that U.S. naval tactical nuclear weapons should all be removed by April 1992. The pace of denuclearization of the Russian (USS) fleet may well be considerably slower if it is true that land-based storage and destruction facilities are inadequate to handle the volume of weapons being removed for subsequent destruction.

Details of tactical nuclear weapons at sea, or formerly at sea, will be found in Appendix A.

H. UNIQUENESS OF NAVAL FORCES: FREEDOM OF THE SEAS

Navies of the world are unique among military forces because their main operating milieu, the high seas, is not the sovereign territory of any nation. Armies and land-based air forces cannot move out of their own national borders without crossing into the sovereign territory or air space of another country--unless they are leaving their own territorial waters to deploy or operate on or over the high seas. "Freedom of the seas" is a centuries-old concept that permits commercial ships and warships to operate in international waters with relatively few restrictions in times of peace. The most recent codification of the law of the sea is contained in the 1982 United Nations Convention on Law of the Sea (UNCLOS). UNCLOS is not officially in effect, since the required number of nations, including the major maritime nations, have not ratified it. However, the United States and the other major maritime nations observe most of the provisions of UNCLOS.

President Reagan stated the position of the United States on UNCLOS on March 10, 1983; and, in so doing gave a comprehensive U.S. position on law of the sea that remains valid. The President said:

> ...The United States will not sign the United Nations Law of the Sea Convention that was opened for signature on December...because several major problems in the Convention's deep seabed mining provisions are contrary to the interests and principles of industrialized nations and would not help attain the aspirations of developing countries....

> However, the Convention also contains provisions with respect to traditional uses of the oceans which generally confirm existing maritime law and practice and fairly balance the interests of all States.
>
> ...I am announcing three decisions to promote and protect the oceans interests of the United States in a manner consistent with those fair and balanced results in the Convention and international law.
>
> First, the United States is prepared to accept and act in accordance with the balance of interest relating to traditional uses of the oceans--such as navigation and overflight....The United States will recognize the rights of other States in the waters off their coasts, as reflected in the Convention, so long as the rights and freedoms of the United States and others under international law are recognized by such coastal States.
>
> Second, the United States will exercise and assert its navigation and overflight rights and freedoms on a worldwide basis in a manner that is consistent with the balance of interests reflected in the Convention. The United States will not, however, acquiesce in unilateral acts of other States designed to restrict the rights and freedoms of the international community in navigation and overflight and other related high seas uses.
>
> Third, I am proclaiming today an Exclusive Economic Zone in which the United States will exercise sovereign rights in living and non-living resources within 200 nautical miles of its coast....
>
> This Proclamation does not change existing United States policies concerning the continental shelf, marine mammals and fisheries....
>
> The United States will exercise these sovereign rights and jurisdiction in accordance with the rules of international law.
>
> Without prejudice to the sovereign rights and jurisdiction of the United States, the Exclusive Economic Zone remains an area beyond the territory and territorial sea of the United States in which all states enjoy the high seas freedoms of navigation, overflight, the laying of submarine cables and pipelines, and other internationally lawful uses of the sea.

As stated above, acceptance of the 200 mile economic zone by the United States was dependent upon freedom of transit within these zones. The United States also accepted 12 nautical miles as the maximum extent of a territorial sea. The 12-mile territorial sea would also include freedom of passage through the international straits of the world, i.e., there will be no restrictions on civilian, naval, or other governmental ships, by unreasonable pollution controls or other administrative procedures, that would permit states with territorial seas -- through which straits cut -- to exercise exclusionary or selective control over ships desiring to transit the straits.

The Law of the Sea Convention, then, has potential impact on naval arms control considerations in three particular areas. First, restriction of freedom of navigation in a 200 (or other) mile economic zone would curtail the maneuverability of naval and other maritime forces throughout the world. Secondly, a 12-mile territorial sea that granted any sort of restrictive measures to the coastal states bordering on the world's international straits would severely curtail the navies of the world and perhaps entail an alteration of strategic plans and alliance guarantees. Thirdly, potential impact could center around the authority and scope of an international regime created to monitor, administer, or control the exploitation of the seas' resources "for the benefit of all mankind," as called for in UNCLOS. The authority of this regime, including its degree of control of navigation within vast areas of the high seas, would be of utmost importance to the navies of the world. As President Reagan stated, the United States did not sign UNCLOS because of objections to the deep sea mining provisions. Additionally, U.S. acceptance of UNCLOS "relating to traditional uses of the oceans" is contingent upon maintenance of freedom of navigation outside territorial seas and in recognized international straits. As stated earlier, although UNCLOS is not officially in effect, the major maritime nations adhere to the aspects of law of the sea that the United States supports. Discussions are in progress under the auspices of the UN Secretary General to renegotiate the deep sea mining provisions to permit the United States and other maritime nations to ratify UNCLOS.

Definition of the limits of the territorial sea remains a contentious issue. The standard of 12 miles accepted by the major maritime nations of the world is disputed by several nations. Libya, for example, claimed most of the Gulf of Sidra in the Mediterranean. The United States refused to accept this claim and subsequently conducted naval operations in the Gulf to exercise freedom of navigation. These operations led to three incidents between the United States and Libya, one in 1983 and two in 1986. Several South American countries claim extensive territorial seas and some have tried to exercise sovereignty over the Exclusive Economic Zone. The United States does not accept any of these claims and has challenged them on numerous occasions. There are also disputes over how to measure the 12-mile territorial sea and, in some cases, what constitutes a territorial sea. A case in point is Peter the Great Bay off Vladivostok, which not only Imperial Russia but also the former Soviet Union claimed as an "historic bay," and therefore part of its territorial sea, while the United States and many other nations reject the claim. Any U.S. operations in or near Peter the Great Bay drew Soviet protests. The CIS (USS) or Russia will undoubtedly assert traditional Russian claims.

Another contentious issue included in UNCLOS is a definition of "innocent passage," i.e., the right of warships to transit through another nation's territorial waters without prior notification or permission, while engaged in a non-hostile transit. (Submarines must transit on the surface and with national flags flying.) A difference in interpretation of this clause led to the "bumping" of the USS Yorktown and USS Caron by Soviet destroyers in the Black Sea in 1988. In September 1989, Secretary of State Baker and then Soviet Foreign Minister Sherdnadze issued a statement, quoted in part below, that resolved this dispute between the two countries:

> The relevant rules of international law governing innocent passage of ships in the territorial sea are stated in the 1982 United Nations Convention on the Law of the Sea (Convention of 1982), particularly in Part II, Section 3.
>
> All ships, including warships, regardless of cargo, armament or means of propulsion, enjoy the right of innocent passage through the territorial sea in accordance with international law, for which neither prior notification nor authorization is required.
>
> Article 19 of the Convention of 1982 sets out in paragraph 2 an exhaustive list of activities that would render passage not innocent. A ship passing through the territorial seas that does not engage in any of those activities is in innocent passage.

Freedom of the seas, protected by more than three centuries of tradition and practice and an extensive body of international law, is a key factor that permits navies, not only of the United States but also of all maritime nations, to operate on the high seas in a peaceful manner. This has been a fundamental issue for the United States since the end of World War II and springs from a conviction that restraints placed on free use of the seas would not benefit the security of the United States. Access to both friends and adversaries, in peace, crisis situations or war, has remained of pivotal importance to the U.S. government since the beginning of the nation.

The position of the United States emphasizes keeping sea lines of communication open not only for its own economic well-being but also for the economic well-being of all nations. The United States desires to preserve maritime mobility and flexibility for commercial vessels and naval forces, for freedom of the seas has been important for the maintenance of peace through deterrence over the past forty years. The long negotiating record in the UN Conferences on the Law of the Sea bears unequivocal witness to the consistency with which this goal has been sought and protected by the United States.

Although many Soviet arms control proposals discussed in Chapter III and Appendix B were aimed at limiting U.S. strike capabilities against Eurasia, these proposals would also limit freedom of navigation for other purposes. Proposals for zones of peace and nuclear free zones abound, from the South Pacific, to the Indian Ocean, to parts of the Western Hemisphere. Should such proposals gain acceptance, they ultimately could undermine not only freedom of the seas but also the ability of all countries to exercise maritime forces and to protect economic interests.

III. A DETAILED ANALYSIS OF COLD WAR NAVAL ARMS CONTROL

A. ANALYTIC FRAMEWORK

The unprecedented pace of change in the political and military structure of the former Communist world has rendered most of the Cold War naval arms control agenda moot. The history of that agenda can, with only a small loss in accuracy, be distilled into one sentence: the Soviet Union proposes, the U.S. disposes. Since the Soviets have been the major initiators of proposals, the agenda that they shaped is a reflection of the political perspective of the former leadership of that nation. As that perspective changes, major parts of the cold war agenda may be expected to disappear, and chances for mutually beneficial naval agreements may improve.

Despite the enormous changes that have taken place in the Soviet Union, certain fundamental truths have survived the revolution of 1991, and can be expected to remain in the predictable future. The Soviet Republics, or at least Russia, will remain a military power and will likely possess the second largest navy in the world. No matter what its political orientation, the Soviet Union will continue to have security concerns that will be shaped in part by its history, traditions, and geography. It is therefore prudent for U.S. decision makers with responsibility for naval policy to be familiar with the historical record of Cold War naval arms control proposals, and to understand what U.S. analysts, both within and outside of the USG, perceived the U.S. interest to be for each specific proposal.

It is in this spirit that the analysis of the Cold War agenda of naval arms control proposals has been carried out. The use of the word "agenda" is not meant to imply that the items on it actually appeared on the formal agenda of any official negotiating forum; it is used rather to convey inclusiveness. The goal of this part of the study is to compile a reasonably complete list of notional naval arms control proposals that have been formally proposed by governments or high officials as well as ideas that have received attention in the relevant literature. A significant fraction of these proposals concern limits on non-strategic nuclear weapons at sea. While these proposals have essentially become obsolete following President Bush's decision to remove these weapons from USN ships and the

Soviet Union's announced intention to follow suit, they are included for completeness, and because of what they reveal about both Soviet and U.S. concerns.

The criteria for inclusion of proposals in this compendium were as follows. First, only proposals that were not part of the SALT and START process were included. A few borderline cases, such as restrictions on nuclear cruise missiles (which are referenced in the START treaty in a politically binding declaration) and the bastion proposal for SSBNs are included for the sake of completeness. Secondly, only proposals that primarily affect the naval forces of the U.S. and the Soviets are included. Many of these proposals also have implications for other nations, chiefly the other NATO naval powers. Thirdly, proposals that are basically unilateral in nature are not included. However, even this is not a sharp distinction, as the recent U.S. decision to remove tactical nuclear weapons from USN ships proves. In that instance, a unilateral U.S. initiative brought an equivalent Soviet response within days, compared to the time period of years which is characteristic of arms control negotiations. Fourthly, the measures considered are all primarily related to national security policy. Possible proposals in the area of safety or good neighbor policy were not included. Lastly, proposals were included only if they had been made by governments, high government officials, or serious analysts in the area. In some cases, the authors of this report found it necessary to define and crystallize a notional arms control concept that had appeared in the literature in order to analyze its strengths and weaknesses.

A common format was adopted for the analysis of the individual proposals. Each proposal is defined with as much specificity as was required to carry out the analysis. Following that, a brief background for the proposal is presented that gives its history, who made it, and what its disposition has been. Next, a summary of the important arguments that have been made for and against the proposal are given. The perspective is that of hypothetical U.S. defense planners, although not necessarily with the current USG point of view. Therefore, arguments supporting Soviet defense needs will not be found. Following the summary of pro and con points, a discussion section expands on the important arguments, and focuses on the issues that divide proponents and opponents. In general, no attempt is made to come to a conclusion as to the desirability or undesirability of the proposal. The analyses conclude with a section listing related proposals and the most important reference needed is the analyses.

The arguments for and against each proposal change somewhat with time, due to changes in technology, force structure, and political relationships between various nations. To the degree possible, a uniform time frame of early 1991 was assumed in the analysis of

each proposal. Three major events since that time, i.e., the abortive August 1991 coup, the Bush initiative and Gorbachev response on Non-Strategic nuclear weapons, and the December formation of a Slavic confederation have not been factored into these analyses.

B. SOME GENERAL ISSUES

A number of issues reappear in essentially the same form in a large number of proposals. In the interest of brevity, these issues will first be discussed by themselves, and will only be referred to in a passing way in the individual proposal analyses.

1. Monitoring and Verification: Assuring Effective Compliance

A very sensitive question for arms control proposals is whether verification and monitoring will be relatively easy and manageable, perhaps being achievable simply by national technical means (NTM), or instead will be difficult or even impossible. And, to be at all effective in ensuring compliance with an agreement, will such verification have to be intrusive, and restrictive of operations? Will there be a great lingering potential for cheating, or at least suspicions of cheating and/or false accusations of cheating?

Given the history of openness in western society, and of secrecy and duplicity on the Soviet side, verification has been a major American negotiating concern over the decades since 1945. Arms restraints without verification would be a trap for any democracy, since a non-democratic adversary (Japan in the 1930s is often taken as an example) might comply with much less than the totality of the agreement, and then one day exploit the fruits of its duplicity by some sudden military aggression. On the other hand, there are costs associated with a secure verification regime. Such verification arrangements may be intrusive and burdensome, hampering naval and military operations and compromising secrecy, or obstructing normal commercial activities, perhaps with the risks of industrial espionage.

The United States, for good reason, prides itself on being a very open society, where a free press, Congress and the independence of the general public make it unlikely that violations can remain forever hidden; perhaps verification arrangements are thus not really necessary for liberal democracies. Yet it is very unlikely that Soviet (or any other foreign) negotiators would be satisfied with this, so that the U.S. would almost certainly have to accept whatever on-site inspections and other intrusive safeguards were established for the adversary. Thus, both sides must seriously weigh the necessity or desirability of intrusive verification arrangements, for the captain of a warship would never look forward

to carrying a potentially hostile observer on board, and industrial enterprises of both sides will similarly wish to minimize the number of foreign inspectors with free access to their factories.

Given the costs and burdens of the fullest and most reliable forms of monitoring, it may thus often be necessary to settle for less (or to forego negotiating some measures). But this then reintroduces very important worries on what the likely potential will be for non-compliance. Even if treaty violations did not occur, moreover, there may be genuine suspicions of such violations, as each side's military planners feel obligated to do worst-case analyses of what the intentions of the adversary might be.

Even where the significance of alleged violations is questionable, temptations for accusations of such violations may arise, in the pursuit of other national policy goals or perhaps simply as part of an internal political debate.

It will thus be necessary to sort out the kinds of naval arms limits that will be easy to monitor by existing national means (for example, the totals of submarines possessed on each side) where no additional verification arrangements would be required; those that will always be more difficult to monitor (for example, whether SLCMs are deployed with nuclear warheads); and those that might be close to impossible to monitor and verify (perhaps an agreement to limit areas of operation of submarines).

It is important to note that total compliance with an arms control agreement may not be equally important in all situations. For some weapons categories, even a 90% adherence to treaty commitments by the adversary would very much serve U.S. interests. Where weapons types do not favor the attack, so that a very great numerical superiority would be needed for either side to successfully attack the other, a broader margin for error emerges, such that air-tight verification is not really required. For a ground force example, if the Soviets agreed to get rid of 40,000 tanks, and in fact only destroy 35,000, the security of NATO and the United States would still be enormously enhanced.

2. The Durability of Agreements in Crises and Wars

A related consideration on arms control is whether any such agreements could possibly be adhered to in crises, or in wartime. However problematical compliance with a naval arms control agreement might be in normal peacetime, such compliance might be thought all the more unlikely as war draws near (a period we often describe as a "crisis"), or when a war has already broken out.

Yet, in the years since 1945, we have also seen a great number of mutual restraints adhered to during crises and during limited wars, and it is not impossible that the prior negotiation of restrictions on structure or operations might thus come to be regarded, by both sides, as one more bench-mark useful for avoiding total escalation.

The limiting of wars since 1945 has always required that opposing sides find a distinction upon which to base mutually perceived restraints. To be maintained as wars are under way, any such distinction must be generally recognizable, as each side must be able to identify how the other is restraining itself. In the process of what has often amounted to tacit bargaining, such restraints have thus been based on arbitrary but visible distinctions of geography or weapons type, and of preexisting international law and treaties.

In addition to the visibility of distinctions, however, the viability of any restraints here will also depend very much on whether there seem to be great military advantages to being the first to expand the scope of the conflict. Any particular naval arms reduction thus should be evaluated for its impact on crisis stability. One can imagine force reductions that would further such stability, and which would not create a power vacuum into which each side was tempted to rush forces to preempt the other; but some operational or structural naval arms control measure could have just the opposite impact.

3. Risks in Negotiation: Slippery Slopes and Firebreaks

Many discussions of naval arms control include references to the possibility of a "slippery slope," by which a restriction on naval forces or deployments serving U.S. national interests might turn out to be logically or psychologically tied to other restrictions very contrary to such interests. By this logic, it then becomes very dangerous to set the precedent of endorsing <u>any</u> departures from long-held principles, for fear that one will then come under pressure to make additional concessions across an entire category. This could apply to "naval arms control" very generally, or to particular issues such as nuclear-free zones or freedom of the seas, or the policy of "neither confirm nor deny." To agree to a non-nuclear status for one body of water, for example the Baltic, might thus produce demands for a similar status for other seas, perhaps the North Sea. And to accept a compromising of the American freedom of the seas commitment for any one strait might be cited as a precedent for other narrow passages. The Soviet negotiating style throughout the Cold War has indeed tended to exploit such openings of categories, in effect striving to makes the slopes even more slippery. Indeed, when discussing naval arms control the

Soviets have linked even the most innocent proposals to an ultimate objective of achieving limitation on naval forces.

While the "slippery slope" effect tends to magnify the scope of any new initiative in the long run, the reverse political "firebreak" mechanism may offer a protection against a long downhill slide. A recognition of the dangers of entering into any new area that has the possibility of great expansion may cause negotiators or other influential parties to clearly define in advance critical boundaries and general principles that will be non-negotiable in future discussions. The imposition of the Jackson Amendment to SALT I may illustrate how the legislative processes of a democracy can be used to take some of the slipperiness out of a slope.

Experts in negotiation have often turned to analogies of labor negotiations or ordinary domestic politics, to see whether the "slippery slope" is an exaggeration or a myth, or whether it is quite real. Even where it is real, however, there may be ways of surmounting it, of introducing new distinctions between what is to be negotiated and what is not, with the metaphor of "firebreaks" then replacing that of "slippery slopes."

Relating this notion of firebreaks to particular issues of naval arms control, it will thus be important, when sorting the proposals that serve U.S. interests and those that do not, to look for the plausible qualitative distinctions around which new notions of international legitimacy or basic U.S. interests could be developed.

4. Freedom of the Seas

A great number of naval arms control proposals have possible implications for the freedom of the seas. The United States has found this principle to be so important in the past that it has gone to war for it, and it would be a major setback for all maritime interests if naval arms control were to become a lever to undermine the "great commons" status of the oceans, as enunciated by Grotius.

Freedom of the seas, protected by more than three centuries of tradition and practice and an extensive body of international law, is a key factor that permits navies, not only of the United States but also of all maritime nations, to operate on the high seas in a peaceful manner. A major problem for the United States in naval arms control is the fear that freedom of the seas might be compromised. This has been a fundamental issue for the United States since the end of the World War II and springs from a conviction that restraints placed on free use of the seas would not be of benefit to the United States. The

long negotiating record in the UN Conferences on the Law of the Sea bears unequivocal witness to the consistency with which this goal has been sought and protected by the United States. The position of the United States is that we must keep our sea lines of communication open for our economic well-being. We must continue to preserve our maritime mobility and flexibility for commercial vessels and naval forces, for freedom of the seas has been important for the maintenance of peace through deterrence and economic prosperity over the past forty years.

Although the Soviet arms control proposals discussed later in this Chapter are aimed at limiting U.S. strike capabilities against their homeland in Eurasia, they also play into the hands of others who would limit freedom of navigation for various other purposes. Proposals for zones of peace, freedom and neutrality abound, from the South Pacific, to the Indian Ocean, to parts of our hemisphere. Should such proposals gain acceptance, they would fundamentally undermine the basic principle of freedom of the seas.

Closely related to the requirement to ensure freedom of the seas is the geographic asymmetry between the United States and the Soviet Union, with the United States being a maritime power with global responsibilities, overseas allies and dependence on seaborne commerce, and the Soviet Union a continental power, without overseas allies and with far less dependence on seaborne commerce. This asymmetry requires that freedom of navigation be protected to enable the United States to operate in support of its allies, protect maritime commerce and maintain sea lines of communications to overseas theaters in the event of a crisis or war. Although the likelihood of the need for a massive U.S. reinforcement of NATO appears unlikely at present, the U.S. must retain the capability to reinforce Europe and resupply or forces. Control of the sea was an essential element of the anti-Saddam coalition in Desert Shield/Storm. Control of the sea allowed the U.S. and its allies to impose the UN-approved economic sanctions, provided the only practical way to move 95 percent of total tonnage by sealift--including almost all Air Force and Army munitions--and permitted the conduct of unhindered naval operations in the Mediterranean, Red Sea, and Persian Gulf. Exceptions to this principle (as perhaps with the Montreux Convention) must thus be shaped very carefully so that the precedent will not cause major damage. And any proposal which otherwise conveyed only marginal rewards would probably be rejected if it posed substantial threats to the freedom of the seas.

5. Parties to the Negotiations

Another set of questions for naval arms control proposals pertains to the parties to proposed agreements. Should the analysis concentrate, even after the events since 1989, mostly on treaties limited to the United States and the Soviet Union? Or will there be a need now to include all the nations that have made a significant investment in naval forces, and perhaps even all the countries that could make such investments in the future.

It is sometimes argued that one advantage of avoiding the larger groupings of nations for any serious arms control is that the propaganda temptations are thus reduced, as there is less playing to the neutral gallery, and less of the confusions that are produced by the intersections of multiple conflicting national interests. The success of the Incidents at Sea (INCSEA) agreement is thus at times projected to be a function of the direct Soviet-to-America linkage and of the direct contacts between naval professionals on each side, and the prospects for making INCSEA multilateral might risk losing some of this. The relative successes of the CSCE and NPT negotiations supply examples in the opposite direction, as multilateral negotiations facilitated the introduction of some very sensible and promising confidence-building measures for ground forces in Europe.

At the same time, the shift away from cold war hostility means that the United States and Russia may often, on naval matters, be jointly facing some other powers or constellation of powers. If arms control is then to be serious, for example an agreement on the non-proliferation of advanced naval warfare systems, it will almost certainly require that other powers be involved in the negotiations, and then be bound formally by the products.

With regard to possible barriers to proliferation, which may be one of the most important future areas of naval limitations (very parallel to the quarter-century-old arms control effort to prevent nuclear proliferation), an important issue will be whether it is better to try to enlist only all the important suppliers by a treaty agreement, or (in an analogy to the NPT) also the potential recipients.

C. ANALYSES OF INDIVIDUAL PROPOSALS

The usual naval arms control category triad of structural, operational, and confidence building was employed as an organizing principle for the individual analyses. Each proposal carries a label whose first letter (F, O, or S) gives the category. The numbers are not sequential as a result of the sifting and reconfiguring of proposals that took place during the period of the study. The list of proposals analyzed is given in Table IV-1.

Table IV-1. Naval Arms Control Proposals Studied

CONFIDENCE-BUILDING MEASURES:	
C1	Multilateral INCSEA agreements
C3	A bilateral agreement to identify all ships with nuclear weapons aboard
C4	A joint seminar on maritime strategy, doctrine, and concept of operations
C5	Notification of naval ship transits and schedules
C6	Exchange of data on force levels, budgets and construction schedules
C7	An agreement to maintain a minimum fixed distance between opposing ships
C9	A bilateral agreement to exchange information on sea-based nuclear weapons control and safety procedures
C12	An agreement to provide information on naval exercises including amphibious exercises, in annual CSBM calendar
	An agreement to exchange information on foreign naval bases
C[illegible]	An agreement to maintain hot-lines between fleet commanders
C17	An agreement to give advance notification of naval exercises
C18	An agreement to allow foreign observers at naval exercises
C19	An agreement to give advance notice of transfers of ships, aircraft and marine forces above certain thresholds
C20	An agreement to give notice of innocent passage through territorial waters
OPERATIONAL PROPOSALS:	
O2	An agreement to establish nuclear-free zones in certain waters
O4	An agreement to establish secure SSBN bastions where ASW activity would be prohibited
O5	An agreement to provide secure bastions for Soviet SSBNs in exchange for Soviet non-deployment of sea-based nuclear weapons within 2500 km of the CONUS shoreline
O10	An agreement to keep all naval forces out of narrow straits except for expeditious passage, and out of major shipping and fishing areas more generally
O23	An agreement to limit the frequency, and size and/or composition duration, of naval exercises
O25	Prohibition of exercises in sensitive or coastal sea areas
O26	An agreement to restrict SSBN operations to certain mutually agreed designated areas
O28	Ships or submarines carrying nuclear SLCMs are prohibited from approaching the territory of the other side closer than the range of the missile
O29	Limit fleet sizes in the Mediterranean

Table IV-1. Naval Arms Control Proposals Studied (Continued)

	STRUCTURAL PROPOSALS:
S1	Bilateral reduction in number of attack submarines
S3	Multilateral limit on long-range attack submarines, with SSBNs and short-range submarines exempted
S8	Reducing 5-7 U.S. carriers in return for a reduction of 100 Soviet SSNs
S10	Bilateral partial or complete ban of deployment of non-strategic nuclear weapons
S28	Bilateral agreement to install permissive action links on all naval nuclear weapons.
	DENUCLEARIZATION PROPOSALS (APPENDIX B)
S11	Bilateral ban on all sea-based non-strategic nuclear weapons
S11a	Bilateral ban on all land- and sea-based naval non-strategic nuclear weapons
S12a	Bilateral ban on all surface ship-based non-strategic nuclear weapons including land-based naval air
S15	Bilateral ban on all naval nuclear and conventional SLCMs
S16	Bilateral ban on all naval nuclear SLCMs
S18	Bilateral ban on all surface ship-based nuclear SLCMs
S19	Bilateral ban on all surface ship-based nuclear and conventional SLCMs
S21	Bilateral withdrawal from certain naval bases
S23	Bilateral reduction of amphibious capability

1. Confidence-Building Measures

There are fourteen proposals in the CBM category. Of these, two (C1 and C7) relate to expansions of the INCSEA agreements, and may still retain some relevance in the future. The remaining twelve concern exchanges of information. Of these, one (C3) has been overtaken by events, and another (C9) has been alluded to, in President Bush's declaration concerning non-strategic nuclear weapons.

NACC1

PROPOSAL:

Negotiate a multilateral Incidents at Sea Agreement (INCSEA) to replace (or supplement) the existing bilateral INCSEA Agreement between the United States and the USSR and the eight bilateral INCSEA Agreements recently negotiated by the USSR with eight NATO members. Both regional INCSEA, i.e., NATO-USSR, and global INCSEA Agreements have been proposed.

BACKGROUND:

This measure was proposed by the Eastern Bloc at CSCE, Vienna in 1989; proposed by the Security Policy Committee of the Danish Parliament in May 1990; tabled at the UN Disarmament Commission; proposed by several participants at two UNDC seminars in 1990.

POINTS THAT PROPONENTS MIGHT MAKE:

- It might reduce the likelihood of dangerous incidents at sea.
- This proposal would expand the nine NATO members that have bilateral agreements with the USSR to include the entire alliance and waters included in the NATO treaty, and, on a global basis, expand the INCSEA Agreement to all navies.
- Provisions of these nine agreements apply equally to all NATO navies, thus simplifying interactions with the Soviet Navy.

POINTS THAT OPPONENTS MIGHT MAKE:

- Lengthy and complicated intra-NATO negotiations and coordination would be required before beginning negotiations with the USSR; moreover, no forum except the UNDC exists for a global INCSEA Agreement.
- A multilateral INCSEA Agreement would require agreement on peacetime ROE even when ships are not in company, since members of NATO have different operating instructions for their ships in peacetime; global INCSEA would have correspondingly greater problems.

- Experience with the United States-USSR INCSEA Agreement has shown that a key factor in its success over nearly 19 years has been the frank, professional, apolitical, private discussions between officers of the two navies; these conditions would not be possible in a multilateral agreement.
- Status of the successful United States-USSR INCSEA Agreement and the eight signed by individual NATO nations with the USSR would have to be resolved.
- There would be no need for such an agreement if all warships observed the "Rules of the Road."
- Some long-standing political differences between NATO nations, e.g., Greece and Turkey, would make it difficult to get alliance-wide agreement on a multilateral INCSEA Agreement; similar problems existing elsewhere in the world, e.g. North and South Korea, China and Taiwan, Vietnam and its neighbors, India-Pakistan, etc., would have to be resolved on a political basis prior to an international INCSEA.

DISCUSSION:

A uniform set of operating rules for all NATO navies would remove some existing ambiguities from routine operations. When operating in formation or in close vicinity during peacetime, different navies may react in different ways when encountering Soviet ships. In crisis or wartime, when ships are under NATO command, agreed rules of engagement (ROE) apply. The nine existing INCSEA Agreements are quite similar, largely modeled on the United States-USSR INCSEA Agreement, but are not identical. Making these agreements uniform by incorporating them into a multilateral agreement and adding the remaining members of NATO, i.e., Belgium, Denmark, Iceland, Greece, Luxembourg, Portugal and Turkey, might have a marginal impact on incidents at sea in NATO waters. However, the majority of NATO ships are incorporated in the nine existing agreements and all NATO nations have exchanged copies of these agreements.

The major objection to a multilateral INCSEA Agreement including all 16 NATO nations, or at least these who would wish to participate, is that it would by definition be a political document and require political coordination to develop agreement within NATO before embarking on negotiations with the Soviet Union. It might be instructive to review the six reasons for success of the 1972 United States-USSR INCSEA Agreement, essentially a non-political document. First, maintenance of the Agreement is clearly in the interests of both sides. Neither nation wants an incident at sea to escalate into a governmental confrontation or to cause damage to valuable ships. Secondly, the

Agreement was carefully crafted to address specific remedies to a specific problem, i.e. how to avoid incidents at sea. It is a short, simple, flexible document that is easily understood by the relatively junior officers at sea who, in many cases, must make it work. Thirdly, the Agreement is consistent with and builds on a long tradition of customary international law, especially maritime law, that has been developed since the seventeenth century, and is consistent with, and requires compliance with, the International Regulations for Preventing Collision at Sea ("Rules of the Road"). The Agreement provides guidance in areas not fully covered by the "Rules of the Road," such as surveillance activities and aircraft-to-ship and aircraft-to-aircraft situations over the high seas. Fourthly, the Agreement has been kept remarkably free from the fluctuations of U.S.-Soviet relations over the past eighteen years. A fifth reason is that the Agreement is both a workable and working document. Both navies have widely published the Agreement within their seagoing fleets and require compliance. Lastly, only two navies and two countries are involved. This means there is no "audience" to play to and no one, except the two sides, to judge the merits of the complaints of either side. Thus far, every incident has been frankly and openly discussed and a solution found. This openness, candor and frankness could well be lacking if other parties were present. It is conceivable that a mechanism might be developed for bilateral discussions within a multilateral forum. However, there is no precedent for this.

While some advantages can be foreseen for a NATO-USSR INCSEA Agreement, there seems to be little benefit to be gained by a more inclusive agreement for other areas of the world. One of the great differences between operations on land and on sea is that the oceans are a "great common" with a long history of traditions, international laws and agreed regulations, e.g., Rules of the Road. No such traditions, laws or regulations exist for land operations. Regional, even NATO-INCSEA Agreements, would tend to diminish this "great common" and create numerous sets of regional differences in transit rights and other maritime measures. Moreover, negotiation of a global INCSEA would require settlement of many long-standing political disputes before such an agreement could be negotiated. It is highly unlikely that a uniform set of rules could be devised for all navies, except a restatement of the Rules of the Road. Such an agreement already exists in the United Nations Convention on Law of the Sea of 1982.

VARIATIONS AND RELATED PROPOSALS:

As written, this proposal incorporates a number of proposals for regional INCSEA Agreements, e.g., Nordic Waters, Baltic Sea, Mediterranean Sea, Northwest Asia, and South America.

NACC3

PROPOSAL:

A bilateral agreement to identify all ships with nuclear weapons aboard.

BACKGROUND:

Soviet Foreign Minister Shevardnadze at the UN Special Session on Disarmament in June 19[illegible] proposed a bilateral agreement whereby the U.S. and the USSR would announce the presence or absence of nuclear weapons on board ships in foreign ports. Shevardnadze's proposal clearly applies disproportionately to U.S. naval vessels, which make more port calls than do those of the Soviet Union. The proposal considered here is a more even handed version embodying the same principle. It has not been proposed in any official forum, but receives mention in the literature.

POINTS THAT PROPONENTS MIGHT MAKE:

- Greater transparency in Soviet naval operations will result.
- Diplomatic tensions arising from anti-nuclear activism in third world nations may be reduced.

POINTS THAT OPPONENTS MIGHT MAKE:

- Nuclear-capable vessels will be identified and stigmatized.
- Severe diplomatic difficulties with Japan will be generated.
- Monitoring the agreement would be very difficult or impossible.
- Nuclear-capable vessels might be unable to make port calls in foreign ports.
- The agreement could lead to tensions about the presence of nuclear-capable ships in foreign bases.

DISCUSSION:

The world has changed drastically since the "neither confirm nor deny" policy regarding naval nuclear weapons was first instituted. At that time, full scale war was the

major planning contingency, and it was prudent for U.S.-armed forces to prepare for a Soviet first strike. Since the major targets of a surprise attack would have been the U.S. nuclear forces, it was important to keep as much of that basing information as possible secret. While nuclear weapon deployments are still not acknowledged by the U.S. Navy, reliable information is publicly available. In an era when the U.S. and the Soviet Union are developing mutual confidence in each other's non-aggressive intentions, the political advantages of mutual transparency in important aspects of military strategy and operations is increasing. As the plausibility of a Soviet first strike decreases, the U.S. need for secrecy in some aspects of nuclear basing and operations is correspondingly decreasing. The attractiveness of this agreement would increase as the balance shifts from the need for opaqueness to the desirability of transparency.

The basic problem with the proposal is that it removes all ambiguity as to the nuclear status of any vessel. In so doing, it gives ammunition to those opposed to the presence of nuclear weapons in ports; in fact, it presents them with a challenge that might be difficult for them to ignore. It is one thing to organize a protest against a vessel that may be carrying nuclear weapons; it is an easier task to organize a protest against a vessel that is guaranteed to be carrying nuclear weapons. Thus, as long as some USN ships are carrying nuclear weapons, abandoning the NCND policy may exacerbate rather than calm the tensions arising from the presence of nuclear weapons aboard.

A particularly serious potential problem exists in Japan, where the anti-nuclear and anti-military sentiment runs deep in some elements of the population. The Japanese constitution forbids nuclear weapons in Japan. Although it is common knowledge that the Midway, the Independence, and other ships home-ported at Yokosuka are armed with nuclear weapons, the U.S. and Japan have found a way to circumnavigate this apparent violation of Japanese law. The long modus vivendi is based on the U.S. policy of "neither confirming nor denying" the presence of nuclear weapons on any ship. A change in that policy might not be easily ignored by the Japanese, and could well result in a re-examination of the entire issue by the Diet. Such a reexamination might well turn out favorable to U.S. interests, but runs the risk of the opposite outcome. Finding a diplomatic solution to this problem would be a necessary prerequisite to entering into the proposed agreement.

NACC4

PROPOSAL:

To convene a seminar on Maritime Strategy/Doctrine/Concept of Operations.

BACKGROUND:

Proposed in a variety of fora by a number of countries and individuals. One formulation, contained in a Report on Confidence-Building Measures by the Security Policy Committee of the Danish Parliament, 30 May 1990, was stated thusly:

> Regular meetings between representatives of individual (national) defense systems with the aim of "discussing maritime strategies and exchanging information on naval visits." The meetings are supposed to open a dialogue aimed at sorting out which aspects of the strategies involved are seen as especially non-confidence building by the opposite party.

POINTS THAT PROPONENTS MIGHT MAKE:

- Such seminars could help in identifying the concerns of participants over aspects of maritime strategy that might be considered as destabilizing.
- An explanation of maritime strategies, doctrines and concepts of operations could alleviate concerns over the intentions of maritime powers.
- Identification of concerns in a seminar could lead to modification of declaratory maritime policy.
- Knowledge of doctrine and operational concepts gained through discussions could make naval operations appear to be less threatening when ships of different nations encounter each other at sea.
- This proposal could lead to greater trust and enhanced stability at sea.
- It would build on the Seminar on Military Doctrine held in Vienna in January, 1990 as part of CDE.
- It could force the Soviets to justify their force structure, and their continued fleet modernization, especially the submarine force, and thus aid in reductions.

POINTS THAT OPPONENTS MIGHT MAKE:

- This proposal offers virtually nothing new as far as actually gaining a better understanding of strategy, doctrine and concepts of operations since these items are discussed in the open literature.
- As formulated by the Soviets, such a seminar is an opening wedge into "substantive discussion by means of concrete steps beyond the framework of measures of the limitation and reduction of naval forces, their weapons, and activities."
- It might offer the Soviets a tremendous propaganda advantage by portraying U.S./Western doctrine as offensive and Soviet doctrine as defensive.

DISCUSSION:

This issue has been discussed in the CDE talks in Vienna as part of the CSCE process, and has been proposed, in one form as another, by Soviet spokesmen. Several participants raised the issue at a UN seminar on CBMs in Denmark in June, 1990. The summary of one working group stated:

> A number of participants suggested that joint seminars of high-level naval commanders to discuss naval doctrines and strategies would be a useful naval CBM; such seminars could also help in identifying the concerns of the different sides and in alleviating them by mutual adjustments of strategy. It was also mentioned that the naval component of military doctrines was already touched upon at the Vienna seminar on military doctrines last year and would probably be discussed in the same context at a similar joint seminar to be held in Vienna next year.

Such a seminar might be useful since the new U.S. Navy "Maritime Concepts for the 90's and Beyond" was published in the U.S. Naval Institute Proceedings in April 1991. "The Way Ahead," an article published in the April 1991 U.S. Naval Institute Proceedings and cosigned by SECNAV, CNO and CMC, states the revised 1982 maritime strategy in terms of "Maritime Concepts for the 90's and Beyond." The new maritime concept adjusts naval policy and force structure to the post-Cold War period. This proposed seminar would provide an excellent forum for explanation of the revised U.S. Navy maritime strategy and should elicit similar responses from the Soviet Union and other nations participating in CFE.

The chief stumbling blocks to the acceptance of this proposal by the United States are:

- explicit statement by Soviet spokesmen that this could lead to "substantive discussions" for limitations and reductions of "naval forces, their weapons and activities,"
- naval doctrine was touched upon in the 1990 Vienna seminar on military doctrine, and the planned follow-on seminar in 1991.

While the Soviets might gain from subjecting the United States to discussions of the Maritime Strategy and the new Maritime Concepts, there would be a requirement for the Soviets to expose their own doctrine and concepts to searching examination. The still secretive nature of the Soviet military might not lead to a meaningful dialogue but, on the other hand, a dialogue might be beneficial in understanding why the Soviets are continuing their naval force modernization, especially the construction of modern submarines beyond the apparent requirements for a "defensive" navy.

It is not clear who would speak for the Soviet Navy at such a forum as this, or whether pre-August 1991 policy, strategy and doctrine remain relevant. However, the U.S. might gain valuable insights into the roles, missions and structure of the post-August 1991 Soviet Navy.

NACC5

PROPOSAL:

Provide notification of ship movements, schedules, transits through international straits, etc.

BACKGROUND:

President Gorbachev, in an interview with the Indonesian newspaper Merdeka in July 1987, proposed that advance notification be given for naval exercises. In Murmansk in October 1987, Gorbachev proposed notification and observation of major naval exercises. He also proposed the banning of naval activity in international straits. Premier Ryzhkov, in Oslo in January 1988, suggested that exercises not be scheduled in important sea lanes and that limits be placed on forces in and around international straits. There have been other Soviet proposals of this nature. (Proposals to have exercises and transits through certain areas are constraints on operations and are discussed in NACO10 and NACO25. This proposal is limited to notification of movements, schedules and transits not covered by NACC17, advance notification of naval exercises.)

POINTS THAT PROPONENTS MIGHT MAKE:

- Notification would make operations more transparent and alleviate concerns that a surprise attack might be imminent.
- Notification would assist in identification and verification of warships in transit.

POINTS THAT OPPONENTS MIGHT MAKE

- NTM provides ample information on movement and transits of warships.
- Schedules change so frequently that an administrative burden would be created by the notification procedures.
- Large-scale exercises and movements are already reported by the NOTMAR/NOTAM system.

- Changes in timing of transits and composition of units due to weather or other factors might give rise to suspicion of non-compliance with notifications.
- Operations security will often dictate that movements of warships not be reported when an occasion arises where military force may be required in the pursuit of national interests.
- The effect of this proposal would be one-sided since the U.S. Navy operates on a global, not a regional, basis.

DISCUSSION:

Notification of schedules and transits might provide some slight degree of security to coastal states beyond that provided by NTM, shore-based radars, routine surveillance by warships and aircraft, reporting of contacts by merchant ships, etc. However, transits by surface ships are easily observed and departures of U.S. ships from home ports are usually reported in local media. Such a notification regime might provide some useful information on Soviet ship movements that is not commonly available except through NTM. Many smaller nations do not have sophisticated means of surveillance available to the U.S. and USSR and would benefit from such reporting.

The effect of this proposal is decidedly one-sided due to the extensive operation of the U.S. Navy throughout the world compared to limited Soviet naval out-of-area operations. The administrative burden of reporting USN schedules and transits could be heavy, depending on the exact details of the reporting requirements, e.g., number of units, distance to be traveled, changes due to weather or operational considerations, etc.

Major fleet exercises are already reported through the NOTMAR/NOTAM system, and this information is available to all nations. Major changes in timing and location are also reported.

Operations security will require that many ship movements not be reported initially. Moreover, transiting and exercising units are often diverted for contingency purposes. If their movements have been previously reported, a change message might reveal U.S. intentions and interests.

VARIATIONS AND RELATED PROPOSALS:

NACC14 (international sharing of surveillance of naval activities); NACC20 (notice of innocent passage through territorial waters).

NACC6

PROPOSAL:

To exchange data on force levels, budgets, and construction schedules.

BACKGROUND:

The Vienna Document 1990 on CSBM measures, which incorporates and supersedes provisions of the 1986 Stockholm Agreement on CSBMs, contains an article (section I, paragraph 14) that requires an annual exchange of information by the states participating in CSCE "....on their military budgets for the forthcoming fiscal year...." Additional articles provide for exchange of information on military forces within ATTU (paragraph 10) and plans for deployment of major weapons and equipped systems within ATTU (paragraph 12). On 12 July 1989, the Neutral/Nonaligned Nations in Vienna proposed to expand this type of information exchange to include forces in ATTU, not just those permanently based there.

POINTS THAT PROPONENTS MIGHT MAKE:

- This proposal might allay suspicions among nations on forces actually in being, amounts devoted to defense, and future force levels.
- It would extend the Stockholm CSBM to include all forces, not just those permanently based in ATTU, and extend it to force levels and planned construction.
- This might give the United States long-sought-for information on Soviet defense budgets, force levels and future building plans, and would be at no cost to the United States since all of the suggested information on the United States is available in unclassified form and debated extensively by the Congress and the media.

POINTS THAT OPPONENTS MIGHT MAKE

- Negotiation of a such an agreement could be a long and difficult process, especially on a coalition basis.

- This could be an opening wedge to include naval forces in the CSCE process beyond the current limited inclusion of notifiable naval activities functionally linked to the shore.

DISCUSSION:

This is a proposal that, taken at face value, appears to have no down side for the United States, and might even offer some advantages. On the other hand, it would have only a relatively minor impact on confidence-building. However, if packaged properly with other similar proposals, there could be some benefit.

The position of the United States has been to oppose extension of the CSCE process since only forces permanently stationed in ATTU are reportable on a routine basis. Notifiable naval activities "functionally linked" to the shore, e.g. amphibious or airborne landings above a certain size, and naval gunfire or air operations in conjunction with a notifiable, functionally linked activity ashore, are reported and may be observed from the water's edge inland. A way to use this proposal might be as a unilateral, U.S. action issued with appropriate publicity and an invitation to the Soviet Union and other nations to follow suit.

The late Marshal Akhromeyev promised the Kennedy Subcommittee of the SASC nearly a year ago that he would provide much of this information, but these data have not been forthcoming.

NACC7

PROPOSAL:

An agreement to maintain minimum fixed distance between United States and Soviet surface warships.

BACKGROUND:

The Soviet Union first proposed this in the negotiations that began in 1967 that eventually led to the 1972 United States USSR Incidents at Sea (INCSEA) Agreement. The Soviet side has kept the proposal as an agenda item at all nineteen Annual Reviews, and the U.S. has rejected it on each occasion, although agreeing to continue to study the Soviet proposal.

POINTS THAT PROPONENTS MIGHT MAKE:

- This proposal would help to avoid collisions between U.S. and Soviet warships.
- It provides inexperienced conning officers with more guidance than INCSEA, Article III which states that ships "...except when required to maintain course and speed under the Rules of the Road, shall remain well clear to avoid risk of collision."

POINTS THAT OPPONENTS MIGHT MAKE:

- There is no requirement for this proposal since the International Regulations for Preventing Collisions at Sea (COLREGS), commonly known as "Rules of the Road," apply to all ship-to-ship encounters at sea and provide sufficient guidance to avoid collisions when followed properly.
- Collisions and close encounters between Soviet and U.S. warships have become virtually non-existent since INCSEA was signed.
- Maneuvers dictated by an agreement outside the Rules of the Road would complicate, or perhaps negate, liability established by International Maritime Law if a collision occurred, since the Rules of the Road apply to all ship-to-ship encounters.

- The determination of who first establishes the minimum distance and how that distance would be maintained between two moving objects would be impractical and potentially dangerous.
- This proposal would interfere with legitimate U.S. surveillance of Soviet naval operations--provisions for surveillance that are included in INCSEA.

DISCUSSION:

The Soviets, in the negotiations that led to signing of the INCSEA Agreement in 1972, and at every Annual Review since that date, have argued for maintenance of a minimum fixed distance between Soviet and U.S. surface warships. The Soviets argue that this would aid in the avoidance of collisions and have asserted that their commanding and conning officers are neither as experienced nor as well-trained as those of the U.S. Navy. Therefore, establishment of a specific distance to maintain would be easier for them to follow than prudence, good seamanship and adherence to the Rules of the Road in order to avoid collisions and dangerous confrontations. However, the assumed Soviet objective of this proposal was to prevent continuous tracking of Soviet submarines by U.S. surface forces. Contact could be broken if a Soviet surface unit established a position between U.S. ships and the Soviet submarine and kept maneuvering to force U.S. ships to stay at 2000 yards (or whatever minimum fixed distance had been established) while the Soviet submarine took evasive action. The INCSEA Agreement provides for surveillance by both sides, and establishes "ground rules" for that surveillance. Agreement by the U.S. to discuss this proposal every year did not imply U.S. support.

The Rules of the Road are accepted and followed by all maritime nations of the world. Merchant ships and warships alike are covered by these universally applicable rules when operating on the high seas. Liability for collisions at sea is usually determined by adherence or nor-adherence to the Rules of the Road. When a ship encounters another on the high seas, it operates on the assumption that the other ship will maneuver in accordance with the rules, and bases its own maneuvers on that presumption. In the overwhelming majority of collisions at sea, one or both ships involved failed to carry out its obligations under the Rules of the Road. Introduction of a specific rule that would apply only to warships of the United States and the Soviet Union would be confusing, potentially dangerous and possibly lead to violations of the Rules of the Road. Collisions with other ships, or damage caused by unanticipated maneuvers by U.S. or Soviet warships, would affect liability under International Maritime Law.

The U.S. has maintained a consistent position that adherence to Rules of the Road and INCSEA, and training, experience, and good seamanship on the part of commanding and conning officers are all that is required to avoid collisions between U.S. and Soviet warships or between U.S. warships and merchant ships. Article III of INCSEA, which is consistent with the Rules of the Road, enjoins ships to stay at "...a distance which avoids the risk of collision and also avoid executing maneuvers embarrassing or endangering the ships under surveillance [and to] take positive early action so as, in the exercise of good seamanship, not to embarrass or endanger ships under surveillance." Establishment of a fixed distance and maintenance of it between two moving objects would be akin to determining whether a foul in basketball is "offensive" charging or "defensive" blocking--and there is no "referee" at sea, except Rules of the Road.

If Soviet commanding and conning officers are incapable of following the provisions of the Rules of the Road and the dictates of good seamanship, there seems to be no reason to believe that they would safely adhere to a minimum fixed distance. Four incidents of contact between Soviet and U.S. ships reported since the signing of INCSEA were caused by improper maneuvers by Soviet ships, although the "bumping" of two U.S. warships in the Black Sea was a deliberate attempt to force the U.S. ships to deviate from their tracks while involved in innocent passage.

The Soviet side at the June 1990 INCSEA Annual Review agreed to change the establishment of a minimum fixed distance from a separate agenda item to inclusion under an agenda item to improve the effectiveness of the INCSEA Agreement, thus signalling a lessened interest in the proposal. Drastic changes in operating patterns of the Soviet Navy since 1989, i.e., fewer days of out-of-area operations, may have made any requirement for this proposal increasingly irrelevant.

NACC9

PROPOSAL:

Jointly agree with the Soviet Union to exchange information on sea-based nuclear weapons control and safety procedures.

BACKGROUND:

This proposal has not been proposed by either side. There was some interest within the USG in the 1960s in sharing information on the technology of Permissive Action Links with the Soviets, but no action resulted. Recently, there has been considerable discussion in the media concerning the robustness of Soviet nuclear command and control.

POINTS THAT PROPONENTS MIGHT MAKE:

- Such an agreement could reduce the danger of accidental or unintended nuclear-armed missile launch by improving nuclear control and safety as a result of an exchange of information.

POINTS THAT OPPONENTS MIGHT MAKE:

- The ability of the sea-based nuclear deterrent to retaliate following an attempted Soviet decapitation attack could be compromised by giving the Soviets detailed information regarding control procedures.

DISCUSSION:

The broad aim of confidence-building measures between the U.S. and the Soviet Union is to provide information and institute procedures to avoid the unintended harmful consequences of having two heavily armed nations with overlapping areas of interest and a history of suspicion and antagonism.

One residue of the cold war is that both nations have large and devastating nuclear arsenals aimed at each other. While the likelihood of these arsenals being fired in anger is decreasing, the possibility of an accidental launch will always remain. Since the

consequences of such an accident are so great, any step that promises to reduce even a small probability should be carefully examined.

The advance of science and technology has always benefited from a free exchange of ideas. Soviet technology has lagged that of the U.S. and its allies at least partially because of a lack of opportunities for Soviet scientists and engineers to freely exchange ideas with their colleagues outside of the Soviet bloc. To some degree, the ill effects of this insulation have been mitigated by the open publication of technical information.

Both U.S. and Soviet concern about the continued integrity of Soviet nuclear command and control, particularly in peacetime, will likely grow as the integrity and political stability of the Soviet Union is increasingly called into question. An exchange of information about control and safety procedures could possibly allay some of those fears, and more importantly, could provide the Soviets with technical information that could result in decreasing the likelihood of an accident. It is also conceivable that a knowledge of Soviet practices would be helpful to those responsible for maintaining and improving U.S. control and safety procedures.

The basic objection to the proposal is straightforward. It is unfortunately true that the detailed design of a state-of-the-art burglar alarm system would be of great interest not only to the designer of the better alarm but also to a burglar seeking to circumvent the system. Information concerning the command chain and procedures for nuclear release authorization could be invaluable to a Soviet planner who is designing a decapitating first strike. Under the terms of this proposal, the U.S. would, of course, acquire similar information about Soviet procedures and instrumentation. However, that information would be less valuable to the U.S. since an unprovoked first strike is inconsistent with the national policy of the U.S. Furthermore, since the accuracy of the information supplied by the Soviets would be very difficult to verify, it could not form the basis for military planning.

The potential threat of accidental or unintended launch of Soviet nuclear weapons is a broader problem than that associated with sea-based nuclear weapons. The command and control mechanisms of Soviet sea-based nuclear weapons are believed to be similar to those of land-based systems, and it may therefore not be useful to separate out the naval component of nuclear arsenals.

The greatest potential utility to the U.S. from this agreement is the information that the U.S. will supply to the Soviets, and the hope that they will make use of it to strengthen

their nuclear command and control. It is possible that the U.S. could achieve the same end by unilaterally supplying the Soviets with all information that could aid their efforts without compromising the integrity of the U.S. command and control chain.

VARIATIONS AND RELATED PROPOSALS:

S-28 Jointly agree with the Soviet Union to install Permissive Action Links or other Use Control Devices on all naval nuclear weapons.

NACC12

PROPOSAL:

Provide full information on amphibious exercises, provide for observation of amphibious exercises before reaching the water's edge, and include Naval activities in the annual CSBM calendars.

BACKGROUND:

The 1986 Stockholm Agreement on CSBMs, subsequently incorporated into the Vienna Document 1990, provides for reporting an amphibious landing that involves at least 3,000 troops at least 42 days in advance, and that an amphibious landing involving 5,000 or more troops will be subject to observation. The Eastern proposal, and that of the NNA, proposed extending the CSBMs to include complete reporting of all amphibious exercises and to report naval activities in the annual CSBM calendar, as ground exercises and land-based air exercises are reported.

POINTS THAT PROPONENTS MIGHT MAKE:

- This proposal would alleviate Soviet concerns about size and type of U.S. naval operations.
- It would place USN and USMC exercises on the same footing as U.S. Army and Air Force exercises, which can be observed throughout the exercise period.

POINTS THAT OPPONENTS MIGHT MAKE:

- It would be a change to the Madrid Mandate, which established a "firebreak at the water's edge."
- It would require intrusive verification on board U.S. amphibious ships and the combatants supporting the exercises, e.g. carriers, cruisers, destroyers and possibly submarines.
- It would be extremely asymmetrical since the U.S. and its NATO allies conduct more naval exercises and possess larger naval forces than does the USSR.

- The proposal would add little, if any, to security of the USSR since troop strength to be disembarked is reported in advance and can be verified by observers ashore. Supporting tactical air strikes and naval gunfire missions are similarly reported and are verifiable.
- This proposal might compromise other aspects of naval operations not directly connected to the amphibious exercise.

DISCUSSION:

The CSCE process was initiated in the mid-1970s, with the first result being the Helsinki Final Act of 1975. A review conference in Madrid in 1983 established the Madrid Mandate, which governed the Stockholm Conference of 1986. The Madrid Mandate requires that naval activities be "functionally" linked to a notifiable land activity, e.g., amphibious landing of the specified size, naval gun fire support or TACAIR strikes ashore to be within the scope of the CSBM negotiations. At Stockholm the Western position was established as a "firebreak at the water's edge," i.e., observation of notifiable naval activities ashore started at the water's edge, not on board ships or enroute to the shore. The Vienna Document 1990 incorporates the CSBM provisions of the Stockholm Agreement. Changes to the Madrid Mandate and the Vienna Document 1990 would require agreement by all nations participating in the CSBM negotiations on-going in Vienna. The next CSCE review conference is scheduled for 1992, making it unlikely that any changes could be considered before that date. A topic such as this would not be a likely agenda candidate in view of the major changes in the European security environment since 1989, particularly the aborted August 1991 coup in the USSR.

The Soviet Union considers U.S. and NATO (mainly U.S.) naval forces as part of an encirclement posed to the Soviet Union by naval forces, i.e., carrier air, SLCMs, overseas bases and amphibious forces. The Soviets have proposed numerous restrictions on naval forces and naval bases close to their homeland. CSBMs approved in the Stockholm Agreement of 1986 "capture" forces permanently land-based in ATTU but exclude naval forces that are not permanently land-based. The exception for naval forces has been discussed above. Both the Eastern and Neutral/Nonaligned proposals tabled in the Vienna CSBM negotiations would expand the "functional link" of the Madrid Mandate so as to require on-board observation of amphibious operations and other independent naval activities. The West continued to oppose this expansion and those proposals were not included in the Vienna Document 1990. Adoption of this proposal would remove part

of the distinction between permanently land-based forces and other forces that rotate in and out of ATTU but are directly related to NATO's defensive missions.

Getting observers on board ships already underway would present some logistics problem, although not insurmountable, and the same would apply to removal of the observers at the end of the exercise, or if the exercise were to be aborted. The presence of observers on the accompanying combatants could reveal intelligence not connected to the exercise being observed, e.g., overall carrier operations, future plans, additional missions, command structure, communications procedures and circuits, etc.

VARIATIONS AND RELATED PROPOSALS:

NACC17 (advance notification of naval exercises); NACC18 (foreign observers at major exercises).

NACC15

PROPOSAL:

A bilateral agreement to provide information on main naval bases and naval bases outside respective national territories.

BACKGROUND:

Neutral/Nonaligned Nations (NNA) proposed at the Vienna CSBM Conference in 1989 that all nations disclose locations of main naval bases. Soviet leaders, on numerous occasions, have proposed the removal of all naval bases from foreign soil. This proposal is a combination of the two proposals made by the NNA and Soviet spokesmen, respectively.

POINTS THAT PROPONENTS MIGHT MAKE:

- Information on location of main naval bases would provide useful information on the size and capability of the major ports and bases used by warships.
- Inclusion of foreign naval bases would be reassuring to neighboring countries.

POINTS THAT OPPONENTS MIGHT MAKE:

- Ample information exists on U.S. bases in the annual Defense Almanac, in publication of the USNI, Jane's, etc.
- U.S. intelligence on Soviet naval bases, combined with open sources in Western media, provides adequate information on Soviet naval bases.
- The administrative reporting requirements inherent in this proposal would not justify the marginal information that might be gained.
- Verification of specific details would require intrusive measures.

DISCUSSION:

The NNA proposal in Vienna was aimed at providing more information on all naval bases, not just foreign naval bases. The Soviet Union has been pushing for the removal of all foreign naval bases in order to reduce the U.S. presence around the periphery of the

Soviet Union. Providing information on all main naval bases could be an entering wedge for the Soviets to renew their demands that foreign naval bases be removed. The Soviets made a specific proposal to leave Cam Ranh Bay in Vietnam in exchange for the U.S. leaving Subic Bay in the Philippines. A specific proposal for both the U.S. and USSR to withdraw from foreign naval bases is discussed as NACS21.

There is ample information on U.S. naval bases in publications of the U.S. Naval Institute, in the annual Defense Almanac, in Jane's publications, in Combat Fleets of the World, etc. It is believed that our intelligence collection efforts provide sufficient information on Soviet naval bases. The U.S. might gain some marginally useful information from Soviet reporting on their naval bases. The reporting requirement would be somewhat burdensome without contributing to any policy goal of the United States.

The NNA proposal was included in a package of proposals for expanding the CSBM regime established at the Stockholm CSCE meeting in 1986. Many of these proposals, including this one, expand the scope of CSBMs into naval forces. The Madrid Mandate excluded naval forces from CSBMs unless functionally linked to a notifiable activity ashore, thus acceptance of this proposal would require a change in the Madrid Mandate. Additionally, it is unlikely that the United States would be willing to negotiate bilaterally on this proposal since the Western side, including the United States, successfully opposed it in Vienna.

Verification of the accuracy of the reporting data could involve intrusive measures, if one party insists on it. The amount of additional information gained by this proposal would be negligible, yet suspicion could be aroused by an effort to verify specific details.

The United States has allowed Soviet ships to visit previously closed ports, such as Norfolk, San Diego and San Francisco, while U.S. warships have visited Leningrad and Odessa. The frequency of these visits is expected to increase, although the Kola bases, Petropavlovsk, New London, Kings Bay and Bangor, Washington are expected to remain "off limits" due to sensitive submarine operations.

VARIATIONS AND RELATED PROPOSALS:

NACS-21 (elimination of foreign naval bases).

NACC16

PROPOSAL:

To establish a "hot line" between fleet commanders of the U.S. and USSR.

BACKGROUND:

This idea has been discussed in the general literature of naval arms control as a means of making naval operations more transparent, although no specific proponent has been identified.

POINTS THAT PROPONENTS MIGHT MAKE:

- This proposal would add an additional channel of communications between opposing naval forces to those already in use.
- It would allow direct communications at the highest operational level to clarify intentions, remove ambiguity from ships' movements, and make naval operations more transparent.

POINTS THAT OPPONENTS MIGHT MAKE:

- Ample opportunities for communications between operational units already exist.
- The INCSEA Agreement contains provisions for navy-to-navy communications at the main naval staff level.
- This proposal is of marginal value and does not merit serious high level consideration; however, it could be discussed at the INCSEA Annual Review.

DISCUSSION:

The 1972 United States-USSR Agreement to Avoid Incidents On and Above the High Seas (INCSEA) contains provisions for a direct radio circuit for bridge-to-bridge communications between ships of the two navies. A table of special signal ·ides for direct communication via signal hoists or flashing light. INCSEA also pro· or navy-to-navy communications between main naval staffs in capitals by using the Naval Attaches

of each country. All of these means of communication have been used successfully to clarify ambiguities and to defuse potentially dangerous situations.

The 1989 Dangerous Military Activities Agreement (DMA) provides for radio communications between units of all military services, incorporates INCSEA provisions for naval forces, and contains a table of special voice signals. DMA also provides for communications between main military staffs in capitals by using the Defense Attaches of each country. The DMA procedures have not been tested, although one meeting of the Joint Military Commission was held earlier this year.

Although involvement of fleet commanders might prove to be useful on certain occasions, it is difficult to see any real advantage. INCSEA provides not only for operational communications but also for the most senior commanders to exchange information. It is unlikely that any communication to an opposing fleet commander would be made without clearance from national authorities. In that case, existing INCSEA or normal diplomatic channels would probably be used. It would seem especially doubtful that the Soviet Navy would allow its fleet commander to talk directly to his American counterpart without explicit instructions from higher authority.

Proponents would likely argue that any additional channel of communication would improve safety at sea and provide an additional means to avoid a serious confrontation. This appears to be a proposal that would do little harm, but would be of marginal utility. If the proposal is considered to be worthwhile, it could be discussed and implemented through discussions at the Annual Review CSEA, and not require separate negotiations.

NACC17

PROPOSAL:

Advance notification of naval exercises above a threshold size and composition.

BACKGROUND:

A periodic Soviet proposal, the idea is not simply to provide advance notice of major naval exercises (this can be and in the past has been done on a nonbinding basis) but to codify notifications in formal arrangements, and (implicitly, at least) prohibit naval exercises where advance notification has not been given. In theory, formalized agreements would better regulate (and make more predictable) exercise behavior, reduce risks of tactical surprise, and minimize possibilities that movements of naval forces under the guise of training exercises might mask or be misunderstood as imminent security threats.

The Soviet Union has defined "major" in different ways at different times. Its Stockholm proposal (1986) spoke of exercises at or above a composition of 30 ships and 100 aircraft. Its Vienna proposal (1989) sought a notification threshold of 20 combat ships of more than 1,500 tons each, or 5 ships with at least one over 5,000 tons and equipped with cruise missiles of aircraft, or 80 combat aircraft ("including carrier-based"). How much in advance the notification would need to be given has also varied in Soviet proposals, with some suggesting merely "within an agreed period of time" and others (Vienna) calling for notification to be made 42 days in advance. How detailed the notification should be has also varied. At times, Soviet spokesmen have seemed content to limit notification to the fact, location and general duration of the exercise; at other times, the Soviets appear interested in extensive notification of operational details and participating naval assets.

The Soviet Union has not been alone in suggesting such measures. Sweden and subsequently the 12 NNAs proposed at CDE/Vienna a more limited measure dealing only with amphibious exercises. Notification (42 days) would entail number and types of ships and landing craft, ships to provide naval gunfire support, number of aircraft sorties by mission, number and types of helicopters. The current U.S. position is that Vienna

CSBMs should continue to be governed by Madrid mandate "functional link" requirement and not be extended to "independent" air and naval activities. The CSCE "firebreak" is to be kept at water's edge.[1]

POINTS THAT PROPONENTS MIGHT MAKE:

- Large U.S./allied exercises in waters deemed sensitive by the Soviets have resulted in "excited" Soviet reactions in the past; routinized, binding, and formal advance notifications may help dispel concerns and thereby contribute to a climate of improved U.S.-Soviet relations.
- If not excessively detailed, notification requirements would have little practical effect on *scheduled* U.S./NATO/allied naval/amphibious exercises, since these are generally known to the other side in advance.
- Proposed notification thresholds are sufficiently high to allow continuance without notification of U.S. covert intelligence-gathering deployments and exercises.
- Reciprocal notifications may provide the United States with useful advance alerts to large Soviet exercises, which, in the past, have not been routinely as well-advertised as have their U.S./NATO counterparts.

POINTS THAT OPPONENTS MIGHT MAKE:

- Notification thresholds proposed by the Soviets are one-sided in impact; only U.S./allied exercises would be captured; most Soviet exercises (and ship displacement tonnages) are too small to require notice under Soviet-proposed thresholds.
- Notification requirements would hamstring U.S. flexibility in crisis responses not involving immediate/legitimate Soviet security concerns, where characterizing early U.S. force movements as exercises may be important to the United States for operational security/diplomatic reasons.
- Formal notification is unnecessary and would only get in the way; the Soviets get sufficient advance information on major U.S./allied ship movements through national technical means in order to protect their national security interests.
- Advance notification would give objecting countries/groups opportunities to complain more credibly/consequentially.

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[1] This was not always the U.S. position. At the Eighteen Nation Disarmament Conference in Geneva in 1962, the United States itself proposed, *inter alia*, notification seven days in advance of major military maneuvers and movements, including naval surface forces and aircraft flights.

- Soviet notification proposals are almost always linked to other proposals aimed to limit naval exercises; decoupling may be difficult politically.

DISCUSSION:

For the United States, the informational value of these kinds of arrangements is likely to be minimal. After a flirtation with large open-ocean exercises in the 1970s and early 1980s, the Soviet navy has returned to small-scale operations close to home waters. By the terms of Soviet notification proposals, Soviet exercises would seldom (if ever) be covered.

Unless the notification requirements were extensively detailed, however, it is equally unlikely that the Soviets would gain much that they would not already know. Scheduled U.S. naval exercises (especially those involving allied participants) normally are planned well in advance and, while the names and dates of these exercises typically are classified Confidential, they are generally known to all interested parties in advance (through annual exercise calendars, press communiques, notifications to the seamen/airmen who will participate, etc.).

The principal risks for the United States in such propositions would appear to be two:

- It may be difficult politically to make an exception in Vienna to cover "independent" naval exercises for limited notification purposes without opening the door to additional exceptions that would be more intrusive and constraining; and
- U.S. flexibility to disguise as "routine exercises" major naval movements to various hotspots in times of crisis could be hamstrung, and both their diplomatic coverage and operational security could be compromised.

This being said, the general proposition might be less problematic to the United States were it to be adjusted along several possible lines.

- Proposed notifications might be limited to the fact, and kept away from the details, of the exercises to be covered.
- Better balance might be achieved by adjusting notification requirements so as to capture fewer U.S./allied exercises and/or more Soviet exercises. In return for advance notification of some number of large U.S. exercises, for example, the Soviet Union might be required to provide advance notice of some number of its smaller operations.

- In order to preserve U.S. flexibility in crises, the United States might insist that, in addition to some agreed number of notifiable exercises, provision be made for some additional number of "no-notice" exercises each year.
- Exercises in the Mediterranean, where flexibility to move naval forces quickly is a key U.S. concern, might be exempted from advance notification, or made the subject of a discretely tailored set of notice/no-notice provisions.

NACC18

PROPOSAL:

Foreign observers at major naval exercises.

BACKGROUND:

The proposal -- an extension of CSCE provisions covering observation of ground force exercises in Europe -- was part of the East's naval CSBM package at CDE, and also part of the NNAs' naval proposal at the same forum. The East's proposal ties observation to the size and composition of the exercise: it would provide for the physical observation of exercises involving 25 or more combat ships (of 1,500+ tons each) and 100 or more combat aircraft. The NNA proposal calls less precisely for observation of "major combat units" during amphibious exercises.

What observation would mean in this context is not altogether clear. At times, the Soviets have implied directly stationing observers on ships participating in exercises. On some occasions, however, Soviet representatives have suggested that it would not be necessary to view exercises "from the decks of the ships involved."

The current U.S. position is that the proposition is unacceptable if made a part of the CDE/CSCE negotiations (it breaks with the Madrid mandate exclusion). The proposition may not be unacceptable if arranged informally by the navies concerned on a case-by-case basis.

POINTS THAT PROPONENTS MIGHT MAKE:

- Routine observation is consistent with a general improvement in East-West relations, and thus symbolically useful.
- Direct observation of naval exercises may help to clarify capabilities and dispel misinterpretations of intentions.
- Similar provisions affecting ground and air exercises in Europe have not constrained U.S./allied flexibility or compromised operational security;

- If observers are not directly stationed on participating combat ships, observation itself probably adds/subtracts little of significant intelligence value; both sides routinely observe the other's naval exercises by national technical means; the Soviet pattern is to tag after U.S./NATO naval/amphibious exercises with "tattletale" vessels.
- Limited to relatively large exercises, the proposal does not affect most naval deployments or U.S. naval assets involved in covert/intelligence gathering activities.

POINTS THAT OPPONENTS MIGHT MAKE:

- The CDE formulation is one-sided; its threshold for observers would capture only U.S./NATO exercises; Soviet exercises are normally too small in size to trigger the observation requirement.
- Were observers to be directly stationed on combat ships participating in exercises, it may be difficult to maintain security of operations and classified information.
- Formal provision for observers is unnecessary; it adds little of military value to either side that cannot be gained, probably more efficiently, by other means.

DISCUSSION:

The principal drawback is that, as proposed in Vienna, there is nothing in the proposition for the United States. It would breach the Madrid Mandate's exclusion of "independent" naval exercises but, given its threshold, would capture only U.S./NATO exercises.

The proposal might be of more interest to the United States if reworked in one of two ways. The first would be to adjust the Vienna formulations so as to achieve somewhat more balance and informational value to the U.S. This might be done by coupling the proposal with an open-skies arrangement such that the West could observe exercises and maneuvers involving Soviet land-based naval aviation (notably the Backfire), Soviet installation support, marine force exercises on Soviet territory, and exercises in Soviet home waters.

The second would be to proceed informally. Provisions for observers would present fewer problems if they were decoupled from the CDE negotiations (thereby avoiding Madrid Mandate issues), and arranged informally by the relevant navies on a case-by-case basis.

NACC19

PROPOSAL:

Advance notification of "transfers" of ships, aircraft and marine forces above certain thresholds.

BACKGROUND:

The proposal was tabled by the East at CDE in Vienna in March 1989. It would require prior notification to all CSCE members by all CSCE members of movements of certain naval forces. The CDE formula has three elements:

- Advance notification of transfers "into and within the zone of naval groups" of 10 or more ships of more than 1,500 tons each, or 5 or more ships of which at least one is 5,000+ tons and equipped with cruise missiles or aircraft;
- Advance notification of transfers to the territory of another state of 30 or more combat aircraft;
- Advance notification of marine force transfers involving 3,000 or more men to the territory of another state.

"Zone of naval groups" is a hazy formulation, but since the proposal was tabled in CDE, it presumably applies to sea areas within the Atlantic-to-Urals (ATTU) area of negotiation. As tabled, the proposal does not specify how much advance notification is contemplated, or whether the intended notification would be made privately or publicly.

POINTS THAT PROPONENTS MIGHT MAKE:

- "Transfer" provisions close a potential loophole in notifications of exercises (NACC17) by capturing movements of forces that the moving side might otherwise insist are not exercises and therefore not notifiable.
- Notifications do not constrain the flexibility to move forces *per se*, but merely provide a mechanism for alerting other interested parties to planned force relocations; this, in turn, should minimize misunderstandings and concerns about force "transfers" that are detected by other means.

- In the case of aircraft and marine forces, the proposal potentially facilitates monitoring of compliance with CFE reduction/relocation provisions by capturing "transfers" that might otherwise be in technical circumvention.

POINTS THAT OPPONENTS MIGHT MAKE:

- As tabled in CDE, the proposal is one-sided in impact:
  - Ship tonnage thresholds would capture larger U.S./allied ships but relatively few (if any) smaller Soviet ships;
  - Unlike U.S./allied amphibious forces, Soviet marine force "transfers" of legitimate security concern to the West are likely to take place wholly within Soviet territory and thus escape notification;
  - U.S. air forces are often stationed in one NATO country but exercise in pursuit of wartime missions in the airspace of another (not so, Soviet naval air assets)
- Notification provisions would potentially impede U.S./NATO flexibility to move forces in anticipation of/response to regional crises in ATTU area that are unrelated to immediate Soviet/European security concerns.
- Advance notification may be difficult to keep from the public view, allowing objecting groups opportunities to complain more credibly/consequentially.
- The proposal is hazily formulated, opening the potential for endless technical disputes over arms sales/transfers/temporary deployments, etc.
- Military value is questionable; militarily significant movements of forces can be monitored through national technical and other means.

DISCUSSION:

The United States has a continuing interest in ensuring that CFE reduction/redeployment provisions are not circumvented by Soviet characterization of assets as "naval" for purposes of avoiding CFE restrictions on relocations within Europe. By insisting upon exclusion of naval subjects from CFE, the West laid itself open to such possibilities. On the other hand, Soviet attempts to circumvent have been well-detected within the CFE process itself, and may be just as well handled through CFE's direct and "associated measures." Moreover, apart from marine force transfers, monitoring of compliance in a proposal such as this is likely to present considerable definitional problems better dealt with in the other forum (e.g., forces may be moved over an extended period of time, posing questions of what constitutes a single, notifiable "transfer").

Although there may be ways to achieve some better balance in the core proposition (by, for example, adjusting notification thresholds and expanding geographical coverage to naval "transfers" within and among military districts on Soviet territory), the enduring drawback in the concept is likely to center on force movements unrelated to immediate Soviet/European security concerns. To the extent that the proposal contemplates coverage of "transfers" within the Mediterranean area, for example, it almost certainly would hamstring U.S. flexibility to anticipate, dissuade, and respond to regional crises.

NACC20

PROPOSAL:

Provide prior notice of innocent passage through territorial seas.

BACKGROUND:

"Innocent passage" applies to all ships transiting the territorial sea. UNCLOS and traditional international law provide that warships (but not aircraft) of all nations enjoy the right of innocent passage for the purpose of continuous and expeditious traversing of the territorial sea or for proceeding to or from internal waters. Submarines must transit on the surface with national flags displayed. Innocent passage includes stopping and anchoring, but only insofar as incidental to ordinary navigation or as rendered necessary by *force majeure* or distress. Pass is *innocent* so long as it is not prejudicial to the peace, good order, or security of the coastal or island nation. UNCLOS codifies the actions that a ship cannot perform while engaged in innocent passage. Prior notification of innocent passage is not required.

The neutral/nonaligned nations, in the CDE meetings in Vienna, "encouraged" but did not formally propose the idea.

Formal notifications of innocent passage have limited precedent in the provisions of the 1936 Montreux Convention covering transits of warships through the Turkish Straits. Montreux requires 8 days advance notice of such transits for Black Sea littoral countries, and 15 days advance notice for warships of non-littoral navies. Montreux, however, is an historically unique exception to generally recognized international law governing innocent passage.

The Soviet Union has not endorsed the NNA idea. Although it has argued in the past for constraints on innocent passage in its own territorial waters (its position was that warship transits in Soviet territorial waters are innocent only when they take place within established shipping routes, and must otherwise receive explicit Soviet permission), the Soviet Union has subsequently agreed to conform its national laws to UNCLOS. In September 1989 the Soviet Union and the United States issued the *Uniform Interpretation*

of the Rules of International Law Governing Innocent Passage, which, among other things, expressed their shared "understanding" that the relevant rules governing innocent passage are those that are embodied in UNCLOS.

POINTS THAT PROPONENTS MIGHT MAKE:

- Advance notice would extend an additional courtesy to littoral states, and might also enhance safety at sea in territorial shipping and fishing areas by routinely alerting littoral states to foreign naval presence.
- In *routine transits*, limited advance notification is not likely to pose significant operational/security difficulties since the presence of warships transiting territorial waters , including submarines that must transit on the surface with national flags flying, are relatively easy to monitor.

POINTS THAT OPPONENTS MIGHT MAKE:

- UNCLOS *as is* embodies applicable, desirable provisions for innocent passage. No further constraints are acceptable.
- Strategic and operational security of submarines approaching and departing the territorial sea would be compromised if notification provisions were to be applied to submarine operations.
- Formal notification sets a bad precedent for freedom of navigation on three grounds:
  - To acquiesce in the CSCE context would make it difficult to object to similar proposals covering other waters around the globe;
  - Acquiescing in advance notice of transit would strengthen pressures to also notify regarding the presence or absence of nuclear weaponry on board ships;
  - The line between advance notification and requirements to seek permission is legally and politically fragile; to agree to the first would open the door to pressures to also agree to the second.
- Countries/groups opposed to U.S. naval presence and deployments would be able to object more credibly.

DISCUSSION:

In advancing the idea, the NNAs were quite tentative, the Soviet Union does not seem to be interested, and the United States, out of concerns about compromising international maritime law with an undesirable precedent, is fiercely opposed. The pattern of the postwar period has been for littoral states to expand claims over foreign maritime

activities in their territorial waters, and for maritime states to insist upon the broadest definition of freedom of navigation. To acknowledge any limitations on innocent passage beyond the terms of current international law risks opening the door to more intrusive/exclusive claims of territorial states to domain over their territorial seas.

2. Operational Proposals

There are nine proposals in the operational category. Of these, three (O4, O5, and O26) deal with strategic naval weapons. Two (O24 and O25) are extensions to naval forces of the CSBM agreements restricting land force exercises. Two (O10 and O29) are long-standing Soviet proposals whose basic aim is to negotiate limits on the reach of U.S. forces, particularly in a non-Soviet context. One (O28) relates to limits on non-strategic nuclear deployment, and has clearly been overtaken by events. The last (O2) relates to the establishment of nuclear-free zones, and also has essentially been overtaken by events, following President Bush's announcement concerning non-strategic nuclear weapons. With the exception of the three proposals dealing with strategic weapons, it is unlikely that any of the operational proposals will remain on the future Soviet agenda.

NACO2

PROPOSAL:

An agreement establishing nuclear-free zones (NWFZ) in some large body of water such as the Mediterranean Sea or the Indian Ocean.

BACKGROUND:

The Soviets have repeatedly proposed a series of agreements to ban nuclear weapon deployments in a variety of international waters, including recently the Mediterranean Sea, the Korean peninsula, the Indian Ocean, and a Nordic area. These and similar initiatives have also been proposed or endorsed by some of the states bordering on these and other waters. The Treaty of Tlatelolco, signed by most of the nations in South America as well as the U.S. and Soviet Union, bans nuclear deployments in South America and substantial areas of contiguous international waters. The U.S. supports the aims of the treaty, but reservations by the U.S. and Soviets exclude naval "transiting" of nuclear weapons from the ban.

POINTS THAT PROPONENTS MIGHT MAKE:

- It would help to discourage nuclear proliferation.
- It might reduce the risks of nuclear escalation if ships carrying nuclear weapons came under attack.
- Certain agreements could constrain Soviet nuclear operations.

POINTS THAT OPPONENTS MIGHT MAKE:

- Most proposed NWFZs would bar U.S. naval operations that are required by U.S. security interests.
- Some NWFZs would partially erode the NCND policy by denying that some ships were nuclear-armed.
- Agreeing to any NWFZ might lead to further pressures for additional NWFZs that would be counter to U.S. interests.

- NWFZ agreements might lead to further demands for the exclusion of all naval forces from specified seas.
- Compliance with NWFZ agreements are virtually impossible to verify.

DISCUSSION:

Discouraging the spread of nuclear weapons to additional countries is an important part of the U.S. national interest. The contribution that NWFZs can make to hindering nuclear proliferation is the strongest argument in their favor.

The circumstances surrounding the Treaty of Tlatelolco can serve as a useful guide to future NWFZ agreements. Despite its limitations and weaknesses, that Treaty is believed to have helped to some degree to hinder the spread of nuclear weapons to South America. While the land area covered by that Treaty has not been completely free of the U.S./Soviet cold war competition, the associated waters are not normally important deployment areas for U.S. or Soviet naval nuclear weapons prior to or since the signing of the treaty. Thus, the U.S. decision to respect that treaty was relatively painless, particularly in the light of the U.S. reservation concerning the "transit" of nuclear weapons. While the difference between transit and deployment is murky and has never been precisely addressed, the agreement is not entirely empty.

Many other sea areas that have been proposed for possible NWFZs are more important for U.S. and Soviet nuclear deployments than are the South Atlantic and Eastern South Pacific waters covered by the Treaty of Tlatelolco. In particular, the U.S. 6th Fleet and the Soviet 6th Escadra are stationed in the Mediterranean Sea, and nuclear weapons are a part of the normal weapon complement of many of their ships. USN SSNs and other ships routinely train in the waters that are likely sites for a Nordic NWFZ.

Agreeing to a NWFZ status for these waters has few advantages, and many disadvantages for the U.S. Agreements here would not contribute significantly to the non-proliferation effort since, with the exception of Libya, which is not likely to join such an agreement, these areas do not cover likely proliferators. The USN believes that crews should train where they will fight, and the U.S. is not likely to agree in advance not to use nuclear weapons in these areas in case of war. While it is conceivable that crews could train with dummy weapons and substitute live rounds in wartime, such procedures are contrary to the basic purpose behind the concept of forward deployment.

The Indian Ocean borders on Indian and Pakistan, and thus has non-proliferation significance. It is also an important area for U.S. naval deployments, but it is probably not

a major factor in U.S. and Soviet naval nuclear planning. Thus it is conceivable that the U.S. might consider a NWFZ in this area to be on balance in the U.S. interest, if it were coupled with measures that limited nuclear proliferation in the littoral states. If the U.S. did become a party to such an agreement, it would require changes in USN procedures, since currently the weapon load of a ship does not depend on where it happens to be operating.

The Korean peninsula presents a different combination of factors. North Korea is a likely proliferator that is also currently hostile to the U.S., and nuclear weapons do factor into U.S. defense planning for South Korea. The USG has rejected recent proposals for denuclearization of the Korean area as not in the U.S. interest, but the combination of a greater threat of North Korean nuclear capability and an improved balance of conventional military force might change that calculus in the future.

The "slippery slope" issue often enters the naval arms control debate in different forms. In this proposal, there might be a concern that there is no rigid firebreak between nuclear and conventional weapons restrictions, and that an agreement to prohibit the deployment of nuclear weapons in certain waters might generate pressure to prohibit or limit conventional weapon deployment as well. It is difficult to evaluate the seriousness of the concern. There are few, if any, past examples of the reality of the danger, particularly in the naval arms control arena. *On the other hand, it could be argued that the lack of* precedent may be directly attributable to those who have opposed naval arms control for just this reason.

An iron-clad verification scheme for an NWFZ agreement would almost surely require intrusive on-board inspections for surface ships, and would be essentially impossible for submarines. A limited challenge inspection regime for submerged submarines has been proposed for NWFZ agreements. These procedures might compromise the inherent secrecy of submarine operations over time, and could be sure of detecting only a massive violation. However, it should be noted that the Tlatelalco treaty is generally accepted to be in the U.S. interest despite that fact that it has no maritime verification procedures whatsoever. It is possible that other NWFZ agreements could be judged to be in the U.S. interest with a verification regime that fell short of providing a high certainty of universal compliance.

NACO4

PROPOSAL:

Bilateral (U.S./Soviet) "ASW-free" sanctuaries for SSBNs.

BACKGROUND:

Interest in SSBN sanctuaries arose initially in the context of the SALT negotiations in the early 1970s. The U.S. aim was to encourage the Soviets to depend more heavily on the SLBM component of their strategic forces. The U.S. Navy's emphasis in war, however, was to aggressively seek out and defeat Soviet SSBNs even before war had gone nuclear. From the U.S. perspective, such early-war threatening of Soviet SSBNs served two purposes: favorable war termination by changing the nuclear correlation of forces, and tying-up large numbers of Soviet attack submarines in a defensive posture around their SSBNs, thereby reducing the Soviet attack submarine threat to the West's sea lines. Such ASW operations against SSBNs had long been criticized as potentially destabilizing in a crisis or conventional war. Encouraging the Soviets to devote a greater proportion of their resources to a basing mode which the United States was improving its capabilities to threaten and defeat impressed a number of (mostly Western) analysts as inconsistent, and prompted interest in ways that might better control "strategic ASW" as a complement to SALT.

Although the Soviets were initially cool to the idea, it did fit congenially with the Soviet SSBN basing strategy, in which Soviet SSBNs are "bastioned" in protected home waters, with only a small portion at sea at any time. In any event, "sanctuary" proposals were gradually incorporated in the Soviet Union's SALT, and later START, proposals.

The proposal itself seems to have evolved through at least two stages. Initially, proponents argued literally for an "ASW-free" zone, in which all assets -- air, surface and subsurface -- capable of strategic ASW would be strictly banned. Later proposals have been more modestly cast, favoring instead a more limited ban within "sanctuaries" of especially threatening ASW platforms, such as attack submarines and major combat ships. How large and where located such sanctuaries would be have varied over time and with the

proposal. Typically, Soviet sanctuaries are defined in terms of current Soviet bastions -- mostly territorial or very remote waters, although in some cases not entirely without overlap into trafficked waters or sea areas of strategic interest to other countries (such as Norway). A few Western analysts (notably Vick and Thomson) have sought to define where U.S. sanctuaries might be located, generally in relationship to U.S. coastlines.

The United States has consistently rejected the concept. Inasmuch as the U.S. does not bastion its SSBNs, but relies instead on open-ocean patrols and the stealth of the individual units for their protection, sanctuary schemes, in the U.S. perspective, would be wholly one-sided.[2]

POINTS THAT PROPONENTS MIGHT MIGHT:

- Reduces potentially destabilizing U.S. threat to Soviet SSBNs.
- Would require the Soviets to explicitly legitimize the survivability of the U.S. SSBN force.
- Soviets might be persuaded to let "keep-out" sanctuaries also be "keep-in" zones for Soviet SSBNs, thereby reducing threats of short-time-of-flight attacks on CONUS.
- The U.S. might need to bastion its own SSBNs in the future, if radical breakthroughs in Soviet ASW are achieved.
- Verification may be a problem, but if only the Soviet Union takes advantage of sanctuaries, it is their problem.

POINTS THAT OPPONENTS MIGHT MAKE:

- As long as the U.S. does not bastion its SSBNs, it is a wholly one-sided proposition.
- Potentially frees large numbers of Soviet attack submarines from bastion protection for purposes of interdicting Western sea lines.
- Distinctions between "strategic" and "tactical" ASW are artificial; effect of sanctuaries would be spill-over into tactical ASW, jeopardizing ability of Western navies to keep open sea lines.
- Given vast and diverse range of ASW techniques, capabilities, "ASW-free" sanctuaries are unrealistic, and anything less not worth the effort.

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2 The objection has led a number of analysts to propose a different package -- essentially one in which SSBN sanctuaries for the Soviet Union are traded for submarine "stand-off zones" off U.S. coasts. This is discussed in NACO5.

- Not durable; easily breached on very short notice.
- "False alarms" (inadvertent intrusions or false contacts) may actually create more political tension than is alleviated by the arrangement in the first place.
- Would adversely affect U.S. intelligence-gathering, including that necessary for monitoring compliance with existing arms control treaties.

DISCUSSION:

As long as the United States eschews bastion approaches to its SSBN survivability, the proposal is invariably one-sided, but it is not altogether clear why, whether and how this actually matters in and of itself. Although verification of a complete ban on ASW activities within sanctuary areas would be impossible (given the wide scope of such activities and the fact that even civilian vessels engage in practices that could be construed as ASW), this can be said to be a problem for the Soviets, not the West. Moreover, a less than "ASW-free" approach aimed only at prohibiting the most capable and dedicated ASW forces from sanctuary areas may be sufficient for purposes of a Soviet sense of security. This might entail defining the scope of prohibitions within a SSBN sanctuary fairly narrowly, perhaps focusing on actual platforms rather than sea-bed sensors, on confining the "keep out" to only certain kinds of platforms (e.g., SSNs), and essentially writing off the potential use of passive sonar by non-military vessels as not much of a problem.

On the other hand, SSBN sanctuaries limit U.S. intelligence gathering off Soviet coasts and conceivably on SOSUS-type sonar devices on the ocean floor, which the U.S. views as an important component of early warning of Soviet preparations for a surprise attack. Spillovers into tactical ASW are unavoidable. While the platforms involved can be characterized as "strategic" (SSBNs) and "tactical" (SSNs), ASW cannot be so neatly compartmentalized. In war, neither side's ASW forces will be technically capable of distinguishing between SSBNs and other submarines, nor could they afford to try. Imposing constraints on strategic ASW might mean constraining tactical ASW as well, a prospect of absolutely no interest to the West.

Moreover, were the Soviets to be granted and derive a sense of security from SSBNs sanctuaries, the Soviet Union would be in a position to free from bastion protection missions large numbers of attack submarines that could then be directed against the Western SLOCs. Indeed, threatening Soviet SSBNs in the conventional stages of a war is intended in no small part as a way to tie-down a large portion of the Soviet attack submarine force.

Balancing the proposition with sanctuaries for U.S. SSBNs would probably mean less, not more, security for U.S. strategic forces. It would define the area where the Soviet Union could concentrate its own strategic ASW efforts, permit focused searches in an area vastly smaller than the 42.5 million square miles that a U.S. Trident-II enjoys, and almost certainly lead to Soviet surveillance of the zone from just beyond its perimeters. On the other hand, it is doubtful if sanctuary agreements would last beyond the outbreak of war.

The argument that, if only the Soviet Union has a sanctuary, then only it has a verification problem, is too clever. Verification of compliance with Soviet SSBN sanctuaries would still be a problem for the West, insofar as charges of non-compliance would poison relations and could threaten the agreement itself. It is not altogether clear how the Soviets would react to ambiguous incidents in times of tension, but, if sanctuaries are to have any real security meaning for the protection of Soviet SSBNs, presumably they would react. In this respect, rather than reducing tensions and enhancing crisis stability, SSBN sanctuaries might just as plausibly have the opposite effect, triggering preemptive countermeasures in the face of ambiguous violations.

Further, strategic sanctuaries risk entangling third parties in the management of the central balance of nuclear deterrence between the two principal powers. Though expressed in terms of Soviet and U.S. (or Soviet and NATO) forces only, the navigational rights of third parties would either tactically complicate or be legally and politically compromised by such arrangements, potentially setting bad precedents for future U.S. navigation rights in other areas Some of this, to be sure, depends on the geographical definition (and location) of sanctuary areas. The smaller and the closer to home waters the sanctuary zone, presumably the less the entanglement with navigational rights of third parties. But Soviet proposals seem generally oblivious to the concern.[3].

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3 Illustrative is a formulation advanced by Alexsey Arbatov in 1987 that would prohibit ASW activities from a zone extending 1000 km from Soviet coasts. Such a zone would have the effect of prohibiting peacetime U.S. naval operations in the Sea of Okhotsk and Sea of Japan, prohibit port calls by U.S. ships to Japan, and bar peacetime U.S. operations in the northern Norwegian, Barents, Kara, Laptev, East Siberian, Chukchi, and Bering Seas.

NAC05

PROPOSAL:

Swapping the granting of a secure bastion for Soviet SSBNs in exchange for a stand-off zone that would prohibit the deployment of Soviet SSBNs and SSNs within 2,500 kilometers of the U.S. coastline.

BACKGROUND:

While this specific proposal has never been made by the Soviets, it has been put forth by certain civilian analysts (see esp. Purver, cited below). It asymmetrically combines elements of two proposals, O-4 and O-7, that have been made by the Soviets. Proposal O-4 would establish secure bastions for the SSBNs of the two superpowers. Proposal O-7 would establish keep-out zones around the homelands of the two superpowers.

POINTS THAT PROPONENTS MIGHT MAKE:

- This proposal would enhance crisis and strategic stability by reducing the potential for a successful surprise nuclear strike against U.S. coastal regions.
- It would promote strategic stability by easing Soviet fears of attrition of SSBN force.
- It would not overly restrict U.S. deployment of conventional or nuclear forces.

POINTS THAT OPPONENTS MIGHT MAKE:

- This proposal would be extremely difficult to verify; at the least, the verification regime would likely be highly, and perhaps unacceptably, intrusive.
- False alarms caused by the inaccuracies associated with submarine detection could raise tensions in a crisis.
- The recognition of the sanctity of the Soviet bastions would free Soviet SSNs for anti-shipping missions.
- The elimination of the threat to the Soviet SSBNs would, in general, erode strategic stability.

- The potential for violation of the stand-off zone would be great.
- This proposal would weaken wartime capability of USN by preventing ASW training operations in areas of possible wartime operations.

DISCUSSION:

It has been widely noted that the navies of the two superpowers display a high degree of asymmetry. These asymmetries are often the source of the objections raised against many of the naval arms control proposals presented in this study. In particular, the asymmetric character of the two navies lies at the heart of the arguments made against proposals O-4 and O-7, which would establish, respectively, SSBN sanctuaries and nuclear land-attack stand-off zones. While it might be argued by some that recognition of the sanctity of the Soviet SSBN bastions might enhance strategic stability, the USN has neither need nor desire to establish bastions of its own. While the U.S. might derive some benefit from a stand-off zone, the existence of such a zone around the USSR would severely constrain U.S. naval operations in support of its most important allies.

This measure would address this fundamental problem of asymmetry by establishing two non-reciprocal zones. Soviet submarines would be prohibited from patrolling within a keep-out zone that would extend from the U.S. coastlines. The deployment of U.S. submarines, however, would be unconstrained (except for their exclusion from the Soviet bastions). Bastions (ASW keep-out zones) would be established for Soviet SSBNs, but U.S. SSBNs would not be granted this protection.

This proposal thus represents an asymmetric combination of certain elements of the earlier proposals. It would provide the enhancement in the security of the U.S. offered by proposal O-7 (for which, see the analysis of O-7) while circumventing the majority of the arguments made against O-7. It would, on the other hand, be subject to the same objections raised against proposal O-4 (for which, see the analysis of O-4). The verification difficulties associated with aspects of both proposals would also carry through to this proposal.

The asymmetric character of this proposal stands as a fundamental difference between this proposal and the majority of arms control measures considered by this study. This is both something of an advantage and a disadvantage. On the one hand, there is the stigma traditionally associated with different frameworks. The arms control process has largely tended to produce reciprocal, symmetric arrangements between (or among) the involved parties, and this proposal could be viewed as straying too far from the norm.

Indeed, given the reluctance with which the USG approaches any aspect of naval arms control, the complications associated with the asymmetric nature of this proposal could, irrespective of its other merits or flaws, keep it from serious consideration. On the other hand, freed from the constraint of reciprocity, this proposal might appeal more to the USG than could either of its predecessors. The USN does not need, and does not want, a submarine bastion, but a non-reciprocal stand-off zone would add, if only marginally, to the security of the U.S.

Ignoring, for the moment, the problems associated with verification (which are significant and which could render the proposal infeasible, irrespective of its other merits), the central question generated by this proposal is the nature of the impact on U.S. security of granting the bastions "sanctuary" status. A fuller discussion of this issue is given in the O-4 proposal analysis.

VARIATIONS AND RELATED PROPOSALS:

This proposal is related to proposals O-4 and O-7, from which it is derived.

NACO10

PROPOSAL:

A bi- or multilateral agreement to keep all naval forces out of narrow straits except for expeditious passage, and out of major shipping and fishing areas more generally.

BACKGROUND:

The Soviets have endorsed proposals similar to this on a number of occasions as a part of a general array of restrictions on the movements of naval forces. Some neutral and nonaligned nations have similarly endorsed such restrictions.

POINTS THAT PROPONENTS MIGHT MAKE:

- The measure might reduce some risks to peaceful uses of the oceans in peacetime, in crises, or perhaps even in wartime.

POINTS THAT OPPONENTS MIGHT MAKE:

- Acceptance of the measure would constitute a substantial compromise of the principle of the freedom of the seas.
- Safe havens for piracy, terrorism or local militarist adventurism could be created.
- The U.S. could be inhibited from conducting naval operations in militarily significant waters in some future contingency.

DISCUSSION:

This proposal is a legacy of the cold war. It is one of a panoply of proposals introduced by the Soviet Union with the intent of restricting the worldwide reach of U.S. naval power and influence. It is designed to appeal to neutral nonaligned nations, and conjures up a vision of protecting innocent commercial activities from harassment by armed ships. As the desire of the Soviet Union to interfere with U.S. worldwide naval activities disappears, this proposal is likely to fade from consideration.

From the point of view of the U.S., there is not much to be said in favor of the proposal, and the claims that are made for it by its proponents are easy to answer. There is little evidence that ships of the USN, or of the other major navies of the world, have accidently, or for that matter purposely, seriously interfered with maritime commerce and industry. While some nations may resent the worldwide reach of U.S. naval power and thus welcome even symbolic shackles limiting its free exercises, others see that same power as a guarantor of unimpeded access for all nations to the oceans of the world.

Acceptance of the proposal would have several negative consequences for the U.S. First, freedom of the seas for all ships, commercial and military, has been a consistent goal of U.S. policy for the entire history of this nation. Any exceptions to that rule must be justified as being of great benefit to the U.S. for other reasons, a test for which this proposal fails. Secondly, such an agreement might be misinterpreted as an invitation to hijackers, terrorists and other independent hostile groups to prey on commercial shipping and activities in the area. Finally, the location of future trouble spots is not predictable, and it is possible that agreeing to such a de-militarization proposal could inhibit the U.S. from naval operations in an area which might someday be deemed necessary or desirable. While any such agreement might have an escape clause dealing with supreme national interests, such clauses are not apt to be exercised lightly, and the U.S. might find itself politically hobbled by such an agreement in some unpredictable future contingency.

NACO24

PROPOSAL:

Prohibition of naval exercises above a threshold size, and limitations on the frequency and duration of naval exercises.

BACKGROUND:

Large naval exercises, even if notified in advance, can be politically provocative and intimidating to nearby countries, and might also be used to mask hostile military intentions. The proposal, accordingly, is to impose an agreed cap on the numbers of ships that can be amassed in a given sea area at a given time under the guise of exercising forces, and to limit the frequency and duration of these exercises.

The proposal on size of exercises was part of the East's tabling at CDE in Vienna. In the CDE formulation, naval exercises involving 50 or more combat ships would be strictly prohibited in waters covered by the CDE agreement. Presumably, the prohibition applies to multinational as well as national exercises. Additionally, there have been a number of proposals to limit the size, duration and even the composition of naval exercises. These latter proposals are aimed at U.S. exercises in the Pacific, e.g. PACEX 89, and U.S./NATO exercises such as Team Spirit, Northern Wedding and Display Determination.

POINTS THAT PROPONENTS MIGHT MAKE:

- Large U.S./allied naval exercises in waters deemed sensitive by the Soviets have been a source of considerable U.S.-Soviet friction in the past; agreeing to a ceiling on exercise size, or limiting the size and frequency of these exercises, would mollify Soviet concerns by removing a major aggravant.
- A 50-ship ceiling on *scheduled* exercises, or reducing the size and frequency, may not matter greatly in the resource environment ahead; fiscal constraints and a more benign East-West security relationship are likely to force shifts in U.S. naval exercise patterns to smaller, less frequent operations in any case.

POINTS THAT OPPONENTS MIGHT MAKE:

- A mutual exercise ceiling is inherently one-sided and would work to the disadvantage of the United States should East-West relations take a bad turn in the future; maintaining the proficiency of forward operations and alliance coordination requires large, frequent, multi-ship exercises by the United States; as a sea denial force, the Soviet Navy exercises close to home waters, and normally conducts exercises of shorter duration with fewer ships.
- First strikes from the sea are strategically senseless, absent a means to follow them with ground forces; large U.S. exercises may be politically aggravating to the Soviets, but they pose no immediate security threat.
- Deploying naval forces to trouble spots under the guise of conducting training can provide useful leverage on emerging crisis situations; a ceiling on size, frequency or duration would seriously impede U.S. flexibility to mass and deploy large naval task forces in regional crises unrelated to East-West security.
- Limiting the numbers of U.S. ships in an area, or the frequency of their passage, is an infringement on freedom of the seas.

DISCUSSION:

U.S./allied exercise patterns have already begun to change and will continue to change in the light of budgetary constraints and a more benign East-West security relationship. Exercises are likely to be generally smaller, and not as close to Soviet territory as was the pattern of the early 1980s. In this regard, acquiescing in a formal accord to limit the size and frequency of exercises may simply codify a development that will take place anyway. This would certainly seem to be the case with respect to U.S./allied exercises in Europe's northern waters.

The principal drawbacks in acquiescing in such an arrangement are two. First, so far as the Soviet Union is concerned, an exercise ceiling is unnecessary in the foreseeable future, but could become a significant hindrance should future relations deteriorate. Second, in the Mediterranean and Middle East areas in particular, the U.S. will continue to require the capability to deploy large naval task forces in response to regional crises, and the diplomatic flexibility to move such forces under the guise of training exercises. A limit on the size, frequency or duration of exercises would seriously, and unacceptably, handicap the United States on both counts.

NACO25

PROPOSAL:

Prohibition of some or all naval exercises in certain sea areas.

BACKGROUND:

The proposal takes two broad forms. One would ban large naval exercises within a certain distance of the coasts of countries that object. The other would prohibit exercises in certain international waters deemed to be especially sensitive or otherwise inappropriate for large-scale naval maneuvers.

Coastline stand-off distances vary with the proposal, but a common formulation is 200 miles (in effect, the EEZ). Sensitive waters have been variously described as areas of "intense civil activity," areas of "international importance," "major international sea lanes," and "zones of lower density of armaments and enhanced confidence."

Both forms have been advanced in the CSCE. In January 1989, the European Parliament called for a CSCE agreement in which all parties would refrain from conducting large-scale naval exercises near the coasts of countries with which a treaty of alliance had not been signed. At CDE in March 1989, the East tabled a measure that would prohibit "notifiable" exercises in "zones of intense shipping and fishing as well as straits of international significance." (In unofficial commentary on the CDE proposal, the Soviets have suggested that "straits of international significance" would include the Baltic straits, Denmark strait, English Channel, and Iceland-Faroe Islands-Scandanavia area.)

POINTS PROPONENTS MIGHT MAKE:

- Given improved U.S.-Soviet relations, large U.S. naval exercises in close proximity to Soviet coastlines would seem to be needlessly provocative, and are likely to be unilaterally curtailed/discontinued in any case.
- Minimizing inconveniences and disruptions to fishing and commercial shipping in heavily trafficked sea areas and sea lanes is in the U.S. interest for safety, diplomatic and general goodwill purposes.

- Confined to relatively large exercises, the prohibition would not affect general provisions regarding freedom of navigation and "innocent passage," courtesy visits and port calls, or U.S. surveillance or intelligence-gathering deployments.

POINTS OPPONENTS MIGHT MAKE:

- The proposition is entirely one-sided and would only restrict the West; the Soviet navy has neither the requirement nor the capability for large, far-forward exercises near U.S./allied coastlines.
- Although in an improved strategic environment, coastal stand-off areas may be operationally inconsequential with respect to Soviet territory, they would unacceptably impede use of U.S. naval exercises to reassure allies/deter others elsewhere.
- Definitions of what constitutes sensitive international waters are bound to be contentious, opening possibilities of endless debates in which the U.S. is likely to be at political/diplomatic disadvantage.
- The potential for setting undesirable precedents is large; it is not in the U.S. interest to imply in even very limited terms that it acquiesces in additional constraints on naval operations within other countries' EEZs or in general international waters.

DISCUSSION:

The proposal seeks to codify, and thereby invariably entangle with, the law and politics of the sea, restraints on exercise behavior that would seem best left to unilateral actions and tacit understandings. Since 1987, following several provocative exercises close to Soviet territory in the years before, the U.S. has recognized a warming U.S.-Soviet relationship by unilaterally conducting its exercises at greater distances from sea areas considered especially sensitive by the Soviets. Such is likely to continue in the future.

The principal drawback in formalizing the pattern lies in the precedents it may set. In a case of "creeping jurisdictionalism," a number of littoral states have sought to expand upon the UNCLOS provisions dealing with EEZs to assert security claims over these 200-mile distances from coastlines. In formally acknowledging exercise stand-off zones, the U.S. runs the risk of implicitly acknowledging some such claims.

Moreover, definitions of sensitive waters and sea areas of "international importance" admit no single interpretation. Once opening this door, the United States

could find itself confronted with a deluge of claims to close-off to naval deployments and operations large and strategically crucial bodies around the world.

NACO26

PROPOSAL:

Restrict SSBN operations to certain mutually agreed designated areas.

BACKGROUND:

An early version of this proposal, whereby SSBNs could not patrol within range of their targets, was introduced by the Soviets during the SALT I negotiations. The U.S. strongly resisted, and the idea was dropped by the Soviets. In 1982, President Brezhnev proposed the above wording in a speech, and the Soviets introduced the measure to a UN Special Session on Disarmament as one of a large number of naval arms control measures. The measure was later introduced by the USSR, Bulgaria, and the DDR to the UN Disarmament Commission in 1985.

This proposal is complementary to, and should not be confused with, the more often discussed proposal to restrict ASW in certain bastion areas. This measure restricts SSBNs to certain ocean areas, but does not restrict ASW within those areas. In the 1982 and 1985 UN proposals, the sea areas were not specified, but were left to future discussion.

Some of the issues raised depend on the size and location of the designated areas, while others are more general in nature. At one extreme, SSBNs would be limited to small patrol areas close to their home ports. At the other, patrols would be allowed anywhere except within range of short time of flight attacks on coastal targets.

POINTS THAT PROPONENTS MIGHT MAKE:

- The probability of a successful first-strike nuclear attack by the Soviets against the U.S. would be reduced.

POINTS THAT OPPONENTS MIGHT MAKE:

- The U.S. would be burdened asymmetrically because U.S. SSBNs traditionally employ wide areas of deployment, while Soviet SSBNs tend to stay in home waters.

- The principle of freedom of the seas would be compromised.
- A negotiated agreement might generate a demand for the establishment of nuclear-free zones in various locations.
- The agreement does not lend itself to a reliable monitoring and verification procedure.
- False alarms arising from inadequate monitoring capability can generate instability in a crisis.

DISCUSSION:

The only important attraction that this proposal might have for the U.S. is that it would complicate the work of a hypothetical Soviet planner attempting to craft a first strike against the U.S. In such a surprise decapitating first strike against the U.S. strategic nuclear forces and their command and control structure, Soviet SSBNs would have an important role to play. A coordinated attack would involve closely timed Soviet land- and sea-based ballistic missile launches, including some precursor attacks from close-in SLBMs aimed at airfields and critical command and control nodes. An agreement not to deploy SLBMs close to U.S. shores would either complicate Soviet planning (if they decided to observe the agreement to avoid giving warning of their intended surprise attack) or give an indication that such an attack was imminent (under the assumption that a large-scale breakout from this proposal is likely to be detectable by U.S. ASW monitoring capabilities). While Soviet SSBN patrols close to U.S. shores have recently been cut back, they could be resumed if the international political situation changes absent an agreement to limit SSBN operations.

There are a variety of disadvantages to the proposal. The positive contribution to strategic stability mentioned above is counterbalanced by an opposite effect. Strategic stability is generally advanced when strategic nuclear forces are more, rather than less, immune from attack. The more difficult it is to locate a SSBN, the more difficult it is to destroy it, and thus any measure that decreases a SSBN's area of operation tends to reduce its invulnerability. While the importance of the effect depends on the details of the proposal, the tendency will be to reduce, rather than increase, stability.

From the U.S. point of view, an important objection is that it would asymmetrically require an alteration of U.S., as compared to Soviet, SSBN operations. Currently, Soviet SSBNs generally stay in the vicinity of their home ports while U.S. SSBNs patrol through large areas of open ocean. Soviet SSBN patrols near U.S. coastal waters have apparently

been diminished over the past several years. Therefore, such a proposal in practice would force the U.S. to change its current practices, and would have no corresponding effect on the Soviets.

U.S. acceptance of this proposal would compromise its defense of the principle of freedom of the seas. While the application of this principle has not been totally absolute, even limited exceptions to an important principle require substantial benefits, which appear to be lacking in this case.

Monitoring and verification of such an agreement will present great difficulties. Reliable monitoring of any proposal that confines or restricts the area of operation of submarines will require a great deal of effort, will consume a large fraction of the USN ASW capabilities, and in the end may not be fully verifiable. Another problem that arises out of the verification difficulty is the incidence of false alarms, which may exacerbate tensions during a time of crisis.

VARIATIONS AND RELATED PROPOSALS:

O-4 A bi- or multilateral agreement to provide each party with secure bastions for the deployment of SSBNs where ASW activity would be prohibited.

O-5 Swapping the granting of a secure bastion for Soviet SSBNs in exchange for a stand-off zone that would prohibit the deployment of Soviet SSBNs and SSNs within 2,500 kilometers of the U.S. coastline.

O-28 Surface ships or submarines carrying nuclear SLCMs are prohibited from approaching the territory of the other side closer than the range of the missile.

NACO28

PROPOSAL:

Surface ships or submarines carrying nuclear SLCMs are prohibited from approaching the territory of the other side closer than the range of the missile.

BACKGROUND:

This measure was proposed by Gorbachev in 1987 in a newspaper interview and by Marshal Akhromeyev in 1988 in a Pravda article. It has not been the subject of negotiation at any arms control forum. Many analysts have proposed submarine standoff zones, which is related to this proposal.

POINTS THAT PROPONENTS MIGHT MAKE:

- The danger of an accidental nuclear launch of a SLCM detonating within U.S. territory would be much reduced.

POINTS THAT OPPONENTS MIGHT MAKE:

- Deployments of nuclear-capable vessels would be prohibited in important waters.
- Nuclear-capable vessels would be identified and stigmatized.
- Verification would be difficult or impossible.
- The required monitoring procedures would be too intrusive.
- The time required for Soviet breakout is small.
- The proposal compromises the principle of freedom of the seas.

DISCUSSION:

This is one of a series of proposals from the Soviet Union whose goal is to reduce the day-to-day vulnerability of the Soviet homeland to attacks from U.S. cruise missiles.

From the U.S. national security point of view, there is little to say in its favor. While the U.S. normally deploys some nuclear-armed cruise missiles within range of the

Soviet Union, Soviet SSN patrols off U.S. coasts have decreased in recent years. Perhaps the sole national security advantage to the U.S. is that the agreement, if verified, would essentially eliminate the risk of an accidental nuclear-armed cruise missile detonating in CONUS.

There are many disadvantages. Under the proposal, peacetime deployments of nuclear SLCM-carrying vessels would be prohibited in Japan and its surrounding waters, the Baltic and Norwegian Seas, the Eastern Mediterranean, and the Persian Gulf. Although reduced in scope due to reduced force levels, USN plans had recently called for ultimately about 200 nuclear SLCM platforms. Despite the reduction in the numbers of nuclear platforms, a large fraction of the fleet would be prohibited from seas of great importance to the U.S. under this agreement.

The USN believes that the ambiguity resulting from the "neither confirm nor deny" policy about nuclear deployments is an important tool for maintaining positive relationships with many nations visited by U.S. warships. Since this agreement would necessitate identification of nuclear SLCM-carrying vessels, this ambiguity would be lost.

Verifying compliance with such an agreement would be very difficult, if not impossible. Analytic opinion is divided as to the difficulty of monitoring an agreement prohibiting all submarines from a similar sized zone. This proposal would prohibit only SLCM-carrying submarines, while allowing similar platforms that were not so armed, which would increase the complexity of the monitoring and verification problem. Surface ships are easier to detect, but procedures for verifying the absence of cruise missiles have not been worked out in detail. If a high degree of confidence is required that no violations ever occur, on-board inspection will almost surely be required. If, on the other hand, the agreement was seen more as a peacetime CBM, a lesser degree of verification may be satisfactory, and frequent, intrusive on-board inspections could perhaps be avoided.

It is important to note that this agreement does not limit the wartime capability of either side. The time required for breakout is simply the time it takes to cross a line in the ocean. From a military point of view, the only possible justification, aside from the previously mentioned avoidance of accidents, is the reduction in risk of a surprise attack. However, current generation nuclear cruise missiles are not widely thought to be an important component of a first strike attack. Thus, the Soviet motives for seeking such an agreement are either psychological or are grounded in internal Soviet politics. Whether it is in the U.S. interest to consider such factors is beyond the scope of this analysis.

VARIATIONS AND RELATED PROPOSALS:

028- Ships or submarines carrying nuclear-armed SLCMs are prohibited from approaching territory of the other side closer than the range of the missile.

NACO29

PROPOSAL:

To limit the size of the U.S. and the Soviet Mediterranean fleets.

BACKGROUND:

The United States Navy's 6th Fleet maintains between one and two carrier battle groups, an amphibious Ready Group, and a Combat Logistic Support Force in the Mediterranean. Their purpose is to protect American interests, establish and protect a sea line of communication (SLOC), respond to regional crises, and show the flag along NATO's southern flank. Absent any crisis, there are likely to be between 25 and 40 USN surface ships (and approximately 2 SSNs) on station in the Mediterranean.

The Soviet Union maintains a squadron of surface ships in the Mediterranean. During the 1980s, this squadron (designated the 5th ESKADRA) consisted of approximately 35 surface ships. Over the past few years, however, the number has declined considerably. The mission of the 5th ESKADRA, as stated by the Soviet Union, is to counter the U.S. 6th Fleet.

POINTS THAT PROPONENTS MIGHT MAKE:

- The U.S. may wish to diminish its presence in the Mediterranean for various political, military, and economic reasons. By entering a formal agreement with the Soviet Union that limits the number of ships of both fleets in the Mediterranean, the U.S. can prevent the Soviet Union from taking advantage of a U.S. force reduction in the region.

POINTS THAT OPPONENTS MIGHT MAKE:

- The Soviet presence is already diminishing, so there is little chance of interference or confrontation. Therefore, reducing the size of the 6th Fleet serves little purpose in terms of advancing U.S.-Soviet relations.
- The U.S. interests in the Mediterranean extend beyond the context of U.S.-Soviet relations. The U.S. would wish to maintain a maritime presence in the Mediterranean even if no Soviet naval forces were present.

- The United States is interested in maintaining the stability and sovereignty of many nations in the Mediterranean region. The 6th Fleet is an important means of projecting U.S. influence in the region.
- 6th Fleet's capability to establish and protect a SLOC and to reinforce U.S. presence in the Persian Gulf, Red Sea, or Arabian Sea might be reduced if this proposal were adopted.

DISCUSSION:

Largely due to economic pressures, the U.S. carrier fleet may soon decrease from fourteen to twelve ships. Given this likely force reduction, it may be wise for the U.S. to allocate its carrier battle groups differently, or alter the composition of those groups. For example, U.S. interests may be better served by placing many of its Mediterranean assets in the Persian Gulf, Arabian Sea, or Indian Ocean. Such a redistribution may strengthen U.S. interests in areas of recent instability.

If the U.S. does intend to reduce the size of the 6th Fleet for economic or any other reason, then an agreement that limits the size of each side's Mediterranean fleet might serve the interests of the United States. Such an agreement might inhibit the Soviet Union from taking advantage of a reduced U.S. presence by building up its Mediterranean fleet and exerting its influence in the region at some future date.

On the other hand, the U.S. may have little to gain by reducing its naval presence in the Mediterranean. The Soviet Union has cut back on the number of surface ships it deploys in that region, defusing most friction related to confrontations and interference, accidental or otherwise. (In a more general context, the 1972 INCSEA agreement has reduced the frequency of U.S.-Soviet naval incidents to virtually a negligible level.) The Soviet Union has nothing of substance to offer in way of inducement or compensation for such a concession.

The United States has interest in maintaining the stability and sovereignty of many nations in the Mediterranean region. Since the U.S. has few air and ground forces in the immediate area, other than those engaged in post-Desert Storm operations, responsibility for assuring stability and sovereignty largely lies with the 6th Fleet. Any force reduction may make the fulfillment of that responsibility more difficult. Indeed, such a reduction might (wrongfully) signal a reduced U.S. interest in the region and could precipitate regional conflicts or have other destabilizing effects.

Ships in the Mediterranean can be readily deployed through the Suez Canal to the Arabian Sea and Persi an Gulf. As these areas are oil-rich and critical to U.S. economic and political interests, it is important to retain the flexibility to respond quickly to crises in these regions (as demonstrated in the Desert Shield and Desert Storm operations). The Mediterranean is a "water highway" to the Red Sea, Persian Gulf, and Indian Oceans. The U.S. fleet, in transiting the Mediterranean, can establish SLOCs to those regions and reinforce them. The 6th Fleet, at current strength, offers this flexibility. A reduced fleet may not.

If this proposal were to be adopted, it would be reasonable to allow for a certain amount of elasticity in its implementation. For example, a provision permitting a temporary increase in the number of ships during a crisis, or during the rotation of ships on station, might have some utility. If this were the case, then the lengths of these temporary periods might have to be negotiated. Also, constraints to be placed on other navies, such as those of Italy or France, would have to be determined.

3. Structural Proposals

Of the 15 structural proposals, 9 deal directly with negotiated limits on the deployment of non-strategic nuclear weapons. These proposals have been essentially overtaken by President's Bush's unilateral initiative of 27 September 1991 to remove all non-strategic nuclear weapons from the U.S. Navy ships. President Gorbachev's response on 7 October 1991 committed the Soviet Union to the same steps. The supporting and opposing arguments for all of these proposals are similar. An analysis of the major issues that arise in all of them is presented in proposal S10. The analysis of the particular variations (i.e., S11, S11A, S12, S12A, S15, S16, S18, and S19) are presented in Appendix B.

Of the remaining six, three (S1, S5, and S8) deal with limits on attack submarines, one (S21) with withdrawal from foreign bases, one (S23) with limitations on amphibious capability, and one (S28) with permissive action links (PALs) on nuclear weapons.

NACS1

PROPOSAL:

Reducing attack submarines (SSNs and diesel submarines) on each side to a common total of about 50 (fifty percent of the current U.S. force).

BACKGROUND:

The Soviets currently have about 240 attack submarines, of which 117 are SSN/SSGNs, compared to a U.S. total of 93, all of which are SSNs. No proposal for a bilateral attack submarine limit has been tabled by either side in any forum, but the concept has been proposed by several U.S. analysts. At the request of the U.S. Congress, the DoD has examined a mutual reduction of SSNs, and has concluded that it is not in the U.S. interest. Soviet representatives have informally stated that the Soviet Union has no interest in such a proposal.

POINTS THAT PROPONENTS MIGHT MAKE:

- The Soviet threat to U.S. SLOCs will be reduced.
- A possibly destabilizing U.S. threat to Soviet SSBNs will be reduced.
- Expenditures on SSNs, and perhaps then on ASW, will be reduced.
- Verification burdens are manageable.
- Current levels of U.S. attack submarines cannot be justified outside of the Soviet threat context.
- At this level of reductions, not only would a Soviet quantitative advantage be eliminated, but the Soviets would be required to retire many highly capable submarines.

POINTS THAT OPPONENTS MIGHT MAKE:

- At the proposed level, U.S. SSNs may be unable to maintain control of the Norwegian Sea in a major conflict.
- At the proposed level, the ability of U.S. SSNs to destroy Soviet SSBNs in a major conflict would be reduced.

- U.S. attack submarines cannot be reduced so drastically while other nations' submarine forces are unconstrained.
- The submarine industrial base would be threatened.
- The number of highly survivable platforms available for theater nuclear and conventional land attack missions would be decreased, and could not be easily and quickly restored.

DISCUSSION:

Several of the issues relating to this proposal are relatively non-controversial.

(1) At this level of reduction, Soviet as well as U.S. submarine forces would be substantially reduced in capability. While the Soviets possess many obsolete submarines, they have far more than 50 modern, capable SSNs.

(2) Expenditures on undersea warfare would be reduced.

(3) The current debate is whether the U.S. should procure one or two SSNs per year, which, because of the 30-year service life, would result over time in a force of 30-60 SSNs. Thus, adoption of this proposal would neither lower procurement costs nor would it require additional erosion of the submarine industrial base.

(4) Monitoring and verification of this agreement is manageable. It will be difficult for the Soviets to build such vessels in secret, and it is fairly easy to demonstrate that existing submarines have been cut up and rendered unusable. Verification of similar limits on SSBNs have proved to be workable.

However, despite the seeming simplicity of the proposal, a variety of complex questions arise where opinions sharply differ and thus a clear picture is not immediately evident.

(5) At equal levels of about 50 attack submarines, is NATO's ability to control Atlantic SLOCs increased or decreased in the event of an all-out war? Such a reduction in the total number of Soviet attack submarines is viewed by some as diminishing the Soviet threat to our SLOCs by reducing the number of possible attacking platforms. Others argue that the major counter to the Soviet SLOC threat is the ASW capability of U.S. SSNs, which would also be reduced by this agreement. Since the Soviet reduction is about 2.5 times as great as the U.S. reduction, it would appear that the reduction favors the U.S. On the other hand, the preferred ASW tactic is to contain and attrit Soviet SSNs before they

break out into the North Atlantic, and the number of U.S. SSNs required for this task is not a simple function of the number of submarines to be contained.

(6) At equal levels of about 50 attack submarines, does the U.S. ability to threaten and attrit a Soviet SSBN force of fixed size increase or decrease? While the number of U.S. attacking submarines would be decreased, so would the number of Soviet defending submarines, and by a larger factor. On the other hand, mines form an important part of the Soviet bastion defense, and they would not be reduced. Furthermore, the answer to this question is tightly linked to the question of how many submarines would be involved in the SLOC campaign, since the same submarines are used for both missions by both sides.

(7) Is it desirable or undesirable to reduce our capability to attack Soviet SSBNs? Our capability here is sometimes labelled a threat to crisis stability once hostilities have commenced, on the fear that attritting SSBNs would thrust the Soviets into a position of desperation as their most survivable deterrent evaporated. On the other hand, others argue that this counterforce threat against Soviet strategic nuclear forces actually enhances deterrence before war starts, because of the resulting Soviet insecurity as to the survivability of their strategic nuclear force.

(8) Will the loss of about 50 SSN platforms for nuclear and conventional SLCMs be a serious loss to U.S. defense capabilities? Some point out the contributions that SSN SLCMs made to Desert Storm. On the other hand, it would be hard to argue that that operation would have been seriously negatively affected had the U.S. SSN force consisted of only 50 submarines in addition to the other available firepower. As regards the nuclear role of SSN SLCMs in a major war with the Soviets, some argue that the number of submarine-based nuclear SLCMs are small compared to the total strategic force, and that the strategic/theater distinction will become irrelevant in wartime. Others counter that it is important to have available a theater nuclear capability to enable the U.S. to respond to a Soviet theater nuclear attack without resort to the strategic arsenal, which carries with it a strong potential for escalation to strategic nuclear attacks against the U.S.

(9) How large an SSN force is necessary to counter third world submarine forces? Such submarines, as illustrated by the British use of the Conqueror in the South Atlantic War, may supply the critical range needed to operate in remote regions, against the adventures of some future regime in Iraq, North Korea or Argentina, etc. The DoD is concerned about the global proliferation of new diesel submarines; such submarines may have some advantages over U.S. (and Soviet) SSNs in quietness. They point out that there are currently 222 attack submarines in the third world, that new propulsion technology will

increase third world submarine capability, and that SSNs are needed to counter these systems. On the other hand, most of the 222 submarines have very limited capability, and it is difficult to project a credible conflict where most, or even many, of these vessels would be engaged against the U.S. The answer to the question requires a detailed analysis, but it seems reasonable that if 93 submarines were sufficient (or nearly sufficient) to counter the relatively capable Soviet force of 240 submarines, then about 50 should be sufficient to deal with the largest third world force, the Chinese navy, with 88 submarines (the majority of which are obsolete).

VARIATIONS AND RELATED PROPOSALS:

This proposal is probably not negotiable with the Soviets as it stands. They might be expected to object to the non-inclusion of French and British attack submarines, which also have NATO roles. They would also likely object to the very asymmetric reductions in what they would probably term basically defensive systems (stressing the attack submarines' role in protecting SSBNs and the Soviet homeland against U.S. sea-based nuclear attack). Variations that take account of these concerns might compensate the Soviets for French and British submarines (e.g., by allowing them a fixed number of diesel submarines in addition to a common SSN limit), or allowing either side to mix conventional and nuclear-powered submarines up to a fixed cap, with a diesel submarine counting as less than a full SSN unit.

NACS3

PROPOSAL:

A multilateral agreement to reduce, limit, or otherwise restrain long-range attack submarines, while placing no limits on shorter-range submarines or SSBNs.

BACKGROUND:

This proposal has been advanced informally by Norwegian Defense Minister J. Holst, and similar concepts have been supported by other civilian analysts. It is consistent with Soviet and other naval arms control proposals calling for restraints on the worldwide deployment of major power naval forces. The proposal has not been tabled or discussed in any arms control forum, and the Soviet position is not known.

POINTS THAT PROPONENTS MIGHT MAKE:

- The agreement would reduce the Soviet threat to trans-oceanic SLOCs.
- It would appease global sentiment opposed to great power naval presence.
- Proliferation of nuclear-powered and AIP submarines could be inhibited.
- Stability would be enhanced by limiting offensive as opposed to defensive submarines.

POINTS THAT OPPONENTS MIGHT MAKE:

- It would limit U.S. ability to operate submarines in distant waters and thereby reduce its ability to project naval power.
- The U.S. ability to threaten Soviet SSBNs would be diminished.
- U.S. ASW capabilities against third world submarine fleets would be reduced, and might be insufficient to protect SLOCs for reinforcement and resupply of deployed forces.
- It would be very difficult to establish a reliable monitoring/verification regime.
- A meaningful definition of the difference between "long" and "short" range submarines would be difficult to develop.

DISCUSSION:

This chief interest in this proposal comes from the fact that it has been suggested by the defense minister of Norway. The conceptual basis arises from the notion that long-range submarines fit best into an offensive strategy, while short-range submarines are defensive, in that they protect home waters against incursions. Roughly speaking, "long range" implies large and nuclear, and "coastal" implies small and non-nuclear (currently diesel), although new non-nuclear submarine propulsion systems may blur this distinction. By this measure, diesel submarines may reinforce a nation in the defense of its own coasts, but are less worrisome to other nations given their limited ability to pose threats to distant SLOCs or bastions. While it is true that WWII diesel submarines operated far from their shores, current ASW capabilities have reduced the seriousness of that threat.

The desirability and the feasibility of the proposal are two independent issues, and must be addressed separately. An analysis of the desirability must assume (for the purposes of the analysis) that the agreement can be written in such a way that it would be verifiable.

Since the concept does not have numbers associated with it, it is not possible to carry out a complete analysis. Given the spirit in which it is offered, the assumption made is that the proposal would seriously reduce the numbers of modern U.S. SSNs, and would not similarly constrain the numbers of smaller diesel submarines. Whether or not any such agreement is in the U.S. interest depends on the answers to the following questions.

1. How important is the U.S. ability to threaten Soviet SSBNs?
2. How serious is the current Soviet SSN threat to trans-Atlantic SLOCs?
3. How important are the U.S. SSN-based reserve and tactical nuclear forces in the context of a U.S.-Soviet war?
4. What is the requirement for the U.S. SSN-based conventional SLCM capability?
5. Could much smaller numbers of SSNs or non-SSN ASW capabilities successfully deal with the residual submarine threats to the USN sea control mission and its ability to protect resupply and reinforcement SLOCs?

None of the above questions have easy answers. The range of opinion within the analytic community with regard to the first four has been discussed in the analysis of proposal S-1 (A Bi-Lateral Reduction of Attack Submarines). The question of the ability of the U.S. to deal with a coastal submarine threat of another nation in its own home waters depends on the particular waters involved, as well as the size and characteristics of the

opposing force. Submarines that are small, coastal, and diesel-powered can be as difficult to find as those that are large, nuclear-propelled and ocean-going. Furthermore, the best ASW system is another submarine. On the other hand, the U.S. has formidable ASW capabilities on surface platforms, which were designed to be effective against a greater threat than that of a third world submarine fleet. A definitive answer to the questions would depend on a detailed analysis of the capability of the threat and the waters in which it would operate.

The words "ocean-going" and "coastal" do not readily translate into specifications for submarines. Presumably, restrictions would be placed on weight, propulsion system, and weapon load. Nuclear-propelled submarines would be considered "ocean-going," and some decision regarding closed cycle propulsion would have to be made. Weight would also be a criterion, with all submarines with a submerged displacement greater than some limit (perhaps in the range of 2,000 tons, which is much less than current generation U.S. and Soviet SSNs) being considered "ocean-going." However, even such substantial limitations would not guarantee that submarines would not be able to transit to any point on the earth and release a limited number of weapons. Designers would be challenged to build "pocket submarines," an analogy to the pocket battleships built to evade the London Naval Agreements.

Monitoring such an agreement would probably require a multilateral agreement for intrusive inspection of worldwide submarine production capabilities amongst all the current nations that manufacture and export submarines. As with the NPT, an avenue of evasion would always exist for nations that did not wish to join the agreement, and proceeded to manufacture their own submarines. Whether such avenues were militarily significant would depend on which nations declined to enter the agreement.

VARIATIONS AND RELATED PROPOSALS:

Bilateral reductions in attack submarines (S1).

NACS8

PROPOSAL:

Reducing 5-7 U.S. carriers in return for a reduction of 100 Soviet attack submarines.

BACKGROUND:

Marshal Sergei Akhromeyev made this proposal in testimony to the U.S. Congress. While it has not been tabled by the Soviet Union in any international forum, and thus is not currently a subject of negotiations, it has received media attention. A reduction in the number of U.S. carriers has been a consistent goal of the Soviet Union for many years.

POINTS THAT PROPONENTS MIGHT MAKE:

(It is difficult to find arguments to support this proposal from the U.S. point of view with the numbers as presented by Marshal Akhromeyev. The Variations and Related Proposals section discusses possible advantages to the U.S. of agreeing to retire different numbers of Soviet submarines and U.S. carriers.)

POINTS THAT OPPONENTS MIGHT MAKE:

- In a U.S.-Soviet war, the requirement for carrier groups would not be greatly reduced even by much larger reductions in Soviet attack submarines.
- The performance of Soviet attack submarines varies widely; the reduction of 100 of their least-capable submarines would not greatly reduce the capability of their force.
- Despite the great reduction of the Soviet threat and U.S.-Soviet tensions, the need to respond to other contingencies will require more carrier battle groups than allowed by this proposal.
- Such a reduction in carriers would reduce future flexibility for naval forces, which is inconsistent with continuing global U.S. security responsibilities.

- Budget pressures will probably bring about a decrease of roughly the magnitude proposed in the number of Soviet attack submarines without the need for corresponding U.S. concessions.

DISCUSSION:

An analysis of almost any arms control measure must start with a comparison between the advantages to the U.S. of the proposed reduction in Soviet weapons inventories and the disadvantages to the U.S. of the proposed reduction in U.S. weapons inventories.

Currently, the Soviet Navy has a fleet of 240 attack submarines, of which only about half are nuclear powered. The capability of the non-nuclear-powered submarines to threaten U.S. sea control is significantly less than that of nuclear-powered submarines. The U.S. Navy expects the Soviets to retire and not replace about 50 diesel submarines[4] before the turn of the century in the absence of any agreement. As a result, the effective additional reduction in the Soviet navy being proposed is about 50 diesel-powered submarines out of a total fleet in the year 2000 of about 75 diesel and 110 nuclear submarines, or a reduction of somewhat less than one third in the least-capable part of the submarine fleet. While this reduction would be welcomed by the U.S. Navy, the main mission of these 50 diesel submarines would be defensive, or the protection of Soviet SSBNs in home waters, and not the more offensive role of attacking U.S. SLOCs on the high seas. On the other hand, the destruction of diesel submarines will tend to decrease the overall SLOC threat, since the home water missions of the diesel submarines will need to be carried out by Soviet SSNs, reducing the latter's availability for more offensive missions.

With respect to the disadvantages to the U.S. of a reduction of 5-7 carriers, the proposal is not specific as to the baseline from which the 5-7 reduction will be taken. If the baseline used is the current number of 14 active carriers, then the proposal will reduce the total number of carriers to the 7-9 range. This then corresponds to roughly a one-third reduction in the number of carriers (i.e., 12) that the DoD (as of early 1991) planned to keep in service absent this proposal.

A reduction in the number of active aircraft carriers by one third would reduce by approximately this factor the number that could be simultaneously deployed in different

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[4] Ronald O'Rourke, "Naval Arms Control: A Bilateral Limit on Attack Submarines?" Congressional Research Service, May 1990.

parts of the globe. Despite the end of the cold war, the U.S. continues to have vital national interests in the Atlantic, Pacific, Mediterranean and Indian Oceans, and such a reduction would seriously reduce the presence that the U.S. Navy could maintain in these areas, as well as the size of the carrier forces that could be deployed for a regional contingency.

While the DoD position is that the USN will require 12 carrier battle groups for the foreseeable future, some analysts have maintained that the actual number will fall below this level in this decade. William Kaufmann has suggested[5] that the requirement in the year 1999 will be in the range of the Akhromeyev proposal. It is not clear what view of the requirement for carrier battle groups will ultimately prevail in the on-going public debate. To the extent that the final number is significantly lower than that presently planned by the DoD, proposals for trading reductions in carriers for reductions in Soviet submarines might seem more attractive.

On the other hand, the requirement for the force projection capability provided by U.S. carrier groups is to a great extent independent of the number of Soviet attack submarines, and even more independent of the number of Soviet diesel submarines. Thus, linking reductions in one to reductions in the other would constitute a significant departure from past arms control negotiations, which have always coupled reductions or caps of like systems on both sides of the table.

VARIATIONS AND RELATED PROPOSALS:

While the Akhromeyev proposal is not attractive from the U.S. point of view, this does not necessarily imply that all agreements that trade U.S. carrier reductions for Soviet attack submarine reductions are inherently unattractive from a U.S. point of view.

While it is true that the roles and missions of U.S. carriers and Soviet attack submarines are very different and that the numbers of these vessels in their respective fleets are not strongly correlated, there are levels at which a trade of reductions would appear attractive to the U.S.; e.g., an exchange one carrier for elimination of all of the Soviet attack submarines. Somewhere between this extreme trade (which would clearly be unacceptable to the Soviets) and the Akhromeyev proposal (clearly unacceptable to the U.S.) there might be a trade which would be of interest to both sides, particularly if both

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5 Kaufmann, W. W., "Glasnost, Perestroika, and US Defense Spending", The Brookings Institution, (Washington) 1990.

sides encounter budget pressures forcing even greater reductions than currently planned. If such reductions are a real possibility, then codifying them in an agreement might be in the U.S. interest, as long as such an agreement does not pose a significant threat of sliding down a slippery slope to further undesirable reductions.

NACS10

PROPOSAL:

Removing non-strategic nuclear weapons from all or some classes of naval vessels and aircraft.

BACKGROUND:

In 1988, the USG rejected Paul Nitze's recommendation to remove all naval nuclear SLCMs, depth charges and torpedoes. At the 1989 Malta summit, President Gorbachev proposed removing all "tactical" nuclear weapons (i.e., this proposal with an exemption for SSBNs and land-based naval aircraft.) Various other proposals for partial denuclearization of warships have been made by the Soviets in other fora. In the FY91 Defense Authorization Act, the U.S. Congress asked the DoD to examine limits or a ban on non-strategic nuclear weapons. The DoD report concluded that such an agreement was not in the interest of the U.S.

The U.S. and Soviet naval non-strategic nuclear forces have different missions and a different structure. The U.S. force, consisting of surface and submarine-based long-range SLCMs, carrier-based bombs, and anti-submarine weapons is mainly configured for land attack missions. The Soviet force, consisting primarily of surface and submarine-based short-range SLCMs and missiles carried by land-based naval air, is mainly configured for anti-ship missions.

The U.S. and the Soviet naval non-strategic nuclear weapon inventories (excluding Soviet naval air) were approximately 2,500 apiece in 1990. These weapons were deployed on about ten U.S. and 500 Soviet vessels. The USN planned (as of early 1991) to roughly double its number of nuclear-capable vessels in the current decade. Soviet Naval Air possesses about 350 bombers capable of carrying 2-4 nuclear weapons apiece. The USN operates about 500 P-3 aircraft, some of which are nuclear capable.

There are many possible variations of bilateral agreements to limit naval non-strategic nuclear weapons. This analysis examines the issues that are common to many of them.

POINTS THAT PROPONENTS MIGHT MAKE:

- Elimination of Soviet sea-based land attack nuclear weapons will increase U.S. security.
- Friction with allies over the presence of nuclear weapons in territorial waters may increase in the future.
- The risk of accidental nuclear escalation from conventional combat situations at sea might be reduced.
- The survivability of U.S. carrier groups would be increased.
- The U.S. would retain the option of tactical nuclear land attack from the exempted platforms.
- Environmental dangers from nuclear weapons lost or destroyed at sea would be eliminated.
- Ships would be freed from the overhead burden associated with the presence of nuclear weapons.

POINTS THAT OPPONENTS MIGHT MAKE:

- Verification is likely to require intrusive monitoring measures.
- It could be the beginning of substantial pressure for bans on all nuclear weapons at sea.
- Reducing the number of nuclear platforms will decrease the survivability of those remaining.
- The agreement will reduce or eliminate the available non-strategic nuclear options.
- The time required for breakout is small.
- Sea-based nuclear weapons can play a deterrence role in regional contingencies.
- Nuclear weapons on surface ships may help deter attacks on those ships.

DISCUSSION:

This proposal can be thought of as a concept which encompasses several different specific variations. The general concept is a partial denuclearization of the seas, which trades certain U.S. nuclear capabilities for other Soviet capabilities. The specific proposals that are contained within the general concept include:

1. Remove all non-strategic nuclear weapons from naval vessels and naval air including (S11) or exempting (S11a) land-based naval air.
2. Remove all nuclear weapons from surface naval vessels and naval air including (S12) or exempting (S12a) land-based naval air.
3. Remove nuclear SLCMs from all (S16) or only surface (S18) vessels.
4. Remove all (nuclear, conventional or dual purpose) SLCMs from all (S15) or only surface (S19) vessels.

The merits of these specific proposals are analyzed separately in this document. There are, however, certain general arguments that apply to all of the specific proposals that fall within the general concept.

The greatest threat to the survivability of the USN surface fleet resides in Soviet naval non-strategic nuclear weapons. While land-based Soviet naval air is believed to represent the most serious threat, the danger from Soviet sea-based anti-ship missiles is also substantial. The essential trade-off contained in this concept is the reduction or elimination of this threat in exchange for the reduction or elimination of the USN land-attack nuclear capability. Proponents will stress the redundancy of the U.S. theater nuclear capability given the sturdy U.S. strategic forces. Opponents will counter by stressing the need for a theater nuclear capability to avoid the need for strategic nuclear first use. A further counter-argument is that reducing the number of sea-based nuclear platforms (planning as of early 1991 called for about 200) will allow the Soviets to concentrate their weapons on those remaining. On the other hand, it should be noted that the Soviets will have a reduced nuclear capability to concentrate.

While non-strategic nuclear land-attack has not played a central role in Soviet naval planning, it has always remained an option for Soviet SLCM-equipped vessels, and the Soviet navy is modernizing this capability. The U.S., with its coastal population centers, is particularly vulnerable to such a threat. Adoption of various forms of this proposal would reduce or eliminate that threat.

It is conceivable that in the post-cold war world, the perceived need for the U.S. nuclear umbrella will decline, and that concern about the dangers inherent in nuclear weapons deployed close to population centers will increase among U.S. allies. Furthermore, these concerns may be exacerbated by environmental concern about the dangers of nuclear weapons lost or destroyed in the oceans in a conventional conflict. A significant increase in those concerns could create a diplomatic problem for the U.S. and an operational problem for the USN. Some form of this proposal could mitigate those effects

for the vessels covered, but would at the same time increase those same problems for vessels not effected.

It is also possible that some of the global apprehensions about the inadvertent use of nuclear weapons in the heat of conventional combat may be justified, so that having such weapons removed from the warships involved will reduce the risks of a nuclear escalation neither national command authority would have desired. While the U.S. may be confident about the robustness of the USN command and control chain, concerns about Soviet nuclear control would similarly be addressed.

Given the autonomous, mobile, and covert (in the case of submarines) nature of the platforms, verification of the various forms of this proposal would require a complex monitoring regime that is likely to contain some level of on-site inspection. Proponents would be obliged to show that a workable, reliable, and affordable regime could be designed that did not compromise the required security and secrecy of USN vessels.

It is often argued that entering naval arms control agreements is akin to treading onto a slippery slope: once over the edge, it is difficult to stop. While it is difficult to evaluate the validity of this view, the conviction of its applicability by those who hold it cannot be denied. They would, for instance, argue that once partial denuclearization of the seas was agreed to, stronger pressures for further denuclearization would arise. Whether or not the natural firebreaks such as strategic, undersea-based, or air-delivered weapons could survive the "slippery-slope" pressures is not self-evident.

All of the denuclearization proposals suffer from the common problem of the ease of breakout on either side. Weapons off-loaded from aircraft can be on-loaded with relative ease. A conventional SLCM could be exchanged with or converted into a nuclear SLCM with relative ease, if not at sea, then on land. Unless safeguards are built into the agreement, a nuclear capability could be restored in either fleet in a time measured in weeks, rather than years, and Soviet naval aircraft could be reloaded with nuclear weapons in hours.

Breakout time could be lengthened for both sides by adding restrictions on weapon inventories as well as nuclear infrastructure and training exercises in the agreement. Since nuclear and conventional magazines, supply depots and operating procedures differ, destroying existing assets and prohibiting relevant exercises and training could make breakout time of days to a few weeks impossible. On the other hand, it is hard to imagine that lengths of time of greater than several months could be achieved with even the most

restrictive agreement. The warning time for a major Soviet breakout without detection depends on the specific details of the monitoring regime, and must be carefully considered in evaluating a specific proposal.

One of the advantages cited for all of the denuclearization proposals is the elimination of the constraints (such as the need for nuclear training and magazine space) imposed on conventional operations by nuclear capability. This benefit of denuclearization cannot be fully (or perhaps at all) realized if the capability for rapid renuclearization is maintained.

Reliable verification is a problem for all of the denuclearization proposals. The Black Sea experiment conducted by the Soviet navy and a group of U.S. non-governmental organizations detected the presence of nuclear weapons at sea. However, given the absence of attempts at countermeasures, the significance of the result is questionable. In general, the more complete the ban, the easier the task of verification, since the location of a single treaty-limited object constitutes a violation. Any reliable monitoring regime would be complex, and would most likely involve a mixture of challenge inspections at sea and in port, and perhaps factory monitoring and tagging, and would almost surely be very intrusive. However, the combination of the ease of reversibility and the limited importance of small violations might result in a diminished need for a fool-proof verification regime.

NACS21

PROPOSAL:

The U.S. and the Soviet Union shall mutually withdraw from certain foreign naval bases.

BACKGROUND:

Both the U.S. and the Soviet Union maintain naval bases around the world. In general, U.S. bases tend to be substantially larger than Soviet bases. The largest Soviet foreign base has been at Cam Ranh Bay in Vietnam. It appears that, within the past year, the Soviets have begun a gradual withdrawal from this base. The Soviets have maintained other, more limited, facilities in Angola (Luanda), Ethiopia (Dehalak Island), Yemen (Aden), Syria (Tartus), Poland, and Cuba. The U.S. maintains major support facilities in the Philippines (Subic Bay), Japan (Yokosuka), Great Britain (Holy Loch and others), and Italy (Naples and others). Somewhat smaller bases are located on Guam and Diego Garcia, and in Spain, Greece, Turkey, Portugal, Panama, and, in the near future, possibly in the Persian Gulf region (in any one of a number of countries).

President Gorbachev has, on numerous occasions, made proposals to eliminate certain of these foreign bases. These proposals have tended to focus on three regions: Southeast Asia, the Indian Ocean, and the Mediterranean. In 1986, 1987, and 1988, he called for the limitation and reduction of foreign naval activity in the Pacific and Indian Oceans. In 1988, he proposed that the U.S. abandon its bases in the Philippines in exchange for a Soviet withdrawal from Cam Ranh Bay. In 1988, Gorbachev suggested that U.S. and Soviet forces mutually withdraw from the Mediterranean Sea.

POINTS THAT PROPONENTS MIGHT MAKE:

- This measure could allow the U.S. to abandon troublesome bases with reduced diplomatic repercussions.
- This proposal could improve U.S. relations with foreign countries who claim to feel threatened by a forward U.S. naval presence.

POINTS THAT OPPONENTS MIGHT MAKE:

- U.S. power projection capabilities would be substantially restricted in return for very minimal Soviet concessions.
- The capacity of the USN to act as a stabilizing influence in the third world would diminish.
- The U.S. would be forced to significantly reduce its traditional reliance on forward-based naval forces.
- Expenditures on naval operations would increase as the USN compensated for the loss of forward bases.
- U.S. naval readiness would decrease and response time would increase.
- The USN's ability to train in important strategic waters would be hampered.

DISCUSSION:

In the past, the Soviets have periodically called for the elimination of the foreign naval bases of the two superpowers. Indeed, it was within this context that the Soviets made one of their most specific, concrete naval arms control proposals: the offer to withdraw from Cam Ranh Bay in exchange for a U.S. withdrawal from Subic Bay. More generally, the Soviets called for the elimination of foreign bases from the Pacific and Indian Oceans, and the Mediterranean Sea. Given the relative size and importance of U.S. and Soviet bases, these proposals were, at the time, so one-sided as to hardly warrant consideration.

However, all of the proposals for mutual base closings have been overtaken by the events of the last few years. The Soviets simply have nothing to offer that is comparable in value to any of the major U.S. foreign bases. The Soviets have unilaterally begun to withdraw from Cam Ranh Bay, and the future of their other bases is uncertain. Furthermore, these facilities are small and of limited utility. It could even be argued that, given the relative importance of forward basing to the two navies, the elimination of all Soviet foreign bases would not be worth the elimination of any one U.S. base.

U.S. acceptance of this proposal would thus entail an (effectively) unilateral U.S. withdrawal from one or more base(s). While such an action might still offer the U.S. certain benefits (outlined above), these advantages seem small when compared to the cost of eliminating any major U.S. naval base. All of these facilities play an important role in U.S. naval strategy. In the Pacific, Yokosuka and Subic Bay provide the primary support to forward naval operations in support of Korea, Japan, Australia, the remainder of the

Pacific Rim, and U.S. possessions in the South Pacific. In the Indian Ocean, Diego Garcia (and any future U.S. base in the Gulf) allows quick U.S. actions in the Middle East. The bases in the Mediterranean provide support for naval operations that protect NATO's southern flank, counter the Soviet Black Sea Fleet (that would be unconstrained by this measure), support Israel, Turkey and Egypt, and that could, in relatively short order, conduct or support operations in the Middle East.

It is true that, in the future, the U.S. may be forced to abandon some of these bases, or may choose to depend more on commercial facilities rather than or permanent bases. It therefore might seem plausible to trade away, even for a marginal gain, something that will be lost anyway. Nonetheless, foreign bases represent a large U.S. capital investment, and would require substantial and probably costly changes in USN operating procedures.

NACS23

PROPOSAL:

The amphibious capabilities of both the Soviet Union and the United States shall be reduced, either by limiting amphibious force-carrying vessels, or by limiting amphibious forces directly.

BACKGROUND:

The Soviets have proposed such restrictions at various times, for example in the Pravda article by Marshal Akhromeyev in September 1988.

POINTS THAT PROPONENTS MIGHT MAKE:

- Future Soviet capability for power projection might be constrained.
- A third world concern about an interventionist force capability would be at least partially addressed.

POINTS THAT OPPONENTS MIGHT MAKE:

- An important capability of U.S. armed forces would be sacrificed to limit a Soviet capability that is not a matter of serious concern.
- Verifying the proposal would be difficult, and would require monitoring the U.S. and Soviet armies as well as the U.S. Marine Corps and the Soviet Naval Infantry.

DISCUSSION:

The amphibious capability of the Soviet Union is mostly concentrated in its Naval Infantry. It is considerably smaller than, and lacks the organic airpower of, the U.S. Marine Corps. Its major mission relates to NATO's northern flank in the context of a major European war. The amphibious capabilities of the U.S. Marine Corps, in contrast, are generally directed at contingencies other than a direct U.S./Soviet confrontation in Europe.

The Soviet lack of carrier-based airpower limits its Naval Infantry's global reach. Its ability to carry out its wartime missions in a timely fashion has been seriously compromised by the loss of Poland and East Germany.

It is likely that this proposal is not made seriously, and falls into a class of proposals that call for bilateral restraints on capabilities in which the U.S. far surpasses the USSR. Given the differences in missions of the amphibious forces of the U.S. and the USSR, the U.S. has almost nothing to gain, and much to lose, in military terms from the proposal. If there is an advantage to the U.S., it is to be found in the diplomatic realm, as some third world nations resent U.S. amphibious forces and see them as a tool of American power projection in what can be seen as an extension of old-fashioned "gunboat diplomacy."

Since amphibious warfare can be carried out only by suitably trained and equipped army units, verification would necessitate monitoring access to the training and operations of a wide range of ground and naval forces. Definitional ambiguities, such as special operation forces, would surely arise. However, monitoring issues are probably not insurmountable if the U.S. were to decide that such a proposal was in its interest.

NACS28

PROPOSAL:

Jointly agree with the Soviet Union to install Permissive Action Links or other Use Control Devices on all naval nuclear weapons.

BACKGROUND:

This proposal has not been made in any official forum. Concern over the lack of Permissive Action Links on all nuclear weapons, particularly those at sea, has been often expressed in the media and in the open literature. As of December 1991, the precise nature of the Soviet command and control regime for naval nuclear weapons was in dispute. The USG has expressed concern about the control of the former Soviet Union's nuclear weapons.

POINTS THAT PROPONENTS MIGHT MAKE:

- Such an agreement would reduce the danger of accidental or unintended nuclear attack.
- Implementation would cause no diminution of the capability of U.S. armed forces.

POINTS THAT OPPONENTS MIGHT MAKE:

- Traditional naval protocols between shore-based and sea-based commanders would be violated.
- The ability of the SSBN force to retaliate following an attempted Soviet decapitation attack could be called into question.
- Compliance would be difficult or impossible to guarantee.
- Verification procedures would be too intrusive.

DISCUSSION:

Currently, PALs[6] are installed on all U.S. nuclear weapons except those deployed by the U.S. Navy. For many years, individuals both inside and outside the U.S. defense establishment have recommended that the U.S. unilaterally extend the use of PALs to all U.S. nuclear weapons at sea. Opponents of such a move have prevailed in the debate. One important argument on the "con" side of that debate was that PALs were a solution to a non-existent problem; namely, that personnel selection and training and operational procedures were sufficiently robust to guard against accidental or unauthorized use.

Unfortunately, the danger of Soviet accidental or unauthorized use is of as much, or even greater, concern to the U.S. There is some uncertainty as to whether the command and control system that the Soviets have designed for their naval forces is sufficiently robust to withstand the turmoil that institutions in that nation are presently undergoing. U.S. national security can only benefit by strengthening the control of appropriate political authorities over Soviet nuclear weapons. If a bilateral agreement to install PALs on all sea-based weapons could be negotiated, a new argument would be added to the "pro" side of the ledger that was missing when the decision not to extend PALS to naval weapons was made.

The problem with such an agreement lies in the two-edge sword of verification. Unfortunately, one set of problems arises with a loose verification regime, and an entirely different set with a rigid regime.

Suppose that the U.S. signs this agreement with a rudimentary verification scheme. Both sides might, for example, show that a combination lock was built into the missile launch control in a way that was not easily bypassed. The Soviets might simply circumvent the agreement by giving the commander the combination to the lock as soon as he took command of the vessel. The U.S., on the other hand, is likely to comply with the agreement. While the declaratory policy of the U.S. might be that the submarine could not launch its weapons after a successful decapitating attack, the net deterrence of a commander who possesses the ability (if not the authority) to retaliate if his homeland is destroyed is greater than one who does not. Thus, the result in this case would be that the U.S. would have traded some level of deterrence without receiving any benefit in return.

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6 In this discussion, the acronym PAL (Permissive Action Link) will be taken to mean any use control device that prohibits the use of a nuclear weapon without real-time receipt of coded information from outside of the vessel on which the weapon is deployed. Strictly speaking, a PAL is only one such device.

Conclusions derived from a deterrence calculus cannot be made rigorously, particularly when the intelligence data available to the party to be deterred allow for more than one conclusion. In the absence of a rigorous verification regime, the Soviets might conclude that the U.S. was complying with the agreement, but they could not be absolutely sure. How much the residual uncertainty might effect their calculations is hard to say.

On the other hand, a different set of problems arise with a verification scheme that is more difficult to circumvent. The more the U.S. understands the Soviet command and control system, the more the Soviets understand ours, and knowledge about that system may provide guidance as to how to attack it. Suppose that the U.S. insisted on a tight verification scheme, including a complete understanding of how the Soviet launch codes were generated, stored and transmitted, and verifiable guarantees that authority could not be predelegated. Presumably such an agreement would involve furnishing the Soviets with similar information. Unfortunately, that information could also be the basis for the design of a decapitating attack that would render the SLBM force impotent. While the U.S. would of course obtain a similar capability against the Soviet SLBM force, it is doubtful that the net trade would be considered in the U.S. interest.

Whether such an agreement is in the U.S. interest depends on an assessment of whether a modest possible increase in the protection against an accidental launch is worth a modest possible decrease in the deterrence offered by the current command and control system of naval strategic nuclear forces.

VARIATIONS AND RELATED PROPOSALS:

C-9 Jointly agree with the Soviet Union to exchange information on sea-based nuclear weapons control and safety procedures.

D. UNDERSTANDING THE RECORD

Together, the approximately forty proposals analyzed above constitute the history of the unresolved cold war naval arms control agenda. With very few exceptions, these proposals were made by spokesmen of the Soviet Union, or by analysts trying to fashion proposals that would meet Soviet objectives and at the same time be acceptable to U.S. policy makers. This simple fact illustrates the fundamental underlying truth of that period: by and large, it was the Soviets, not the U.S., that found agreements to limit naval systems and operations in its general interest. Exceptions from the U.S. side were three U.S.-USSR bilateral initiatives - Incidents at Sea Agreement (1972); Dangerous Military Activities Agreement (1989); and Law of the Sea discussion (1989).

The reasons for this asymmetry of interest are not hard to understand, and derive directly from the asymmetry in forces and geography. While arms control agreements negotiated between partners of dissimilar strength and size can produce benefits for both sides (the NPT is a striking example), the more general rule is one of parity: symmetric agreements negotiated between equal partners. The Soviet Union, possessing larger land forces, resisted a conventional arms control agreement in Europe until non-military factors overrode their strictly military considerations. Similarly, the U.S., a maritime nation with economic interests and allies overseas and the dominant sea-power in the world, found little advantage to be found in the majority of proposals advanced by the Soviet Union, as long as a major European war was the major planning scenario. Had their naval arms control offensive been successful, it would have been, for the Soviets, a painless and inexpensive way to limit the reach of the U.S. navy, a goal that the Soviet navy was unable to accomplish on its own.

The profound changes that have taken place in the past year in the perceived intentions and capability of Soviet military forces have rendered the greatest part of that agenda irrelevant. As a matter of historical interest, a careful reading of that agenda and the associated list of pro and con arguments for each proposal from a U.S. perspective gives an interesting insight into both Soviet and U.S. cold war defense concerns and goals.

Of the twenty four structural and operational proposals, two thirds relate to nuclear weapons. Two persistent themes emerge; Soviet concern about the vulnerability of their territory to USN non-strategic nuclear weapons, and of their SSBNs to U.S. SSNs. In both cases, there was little parallel U.S. concern. Despite the coastal concentration of military and civilian targets in CONUS, the Soviet sea-based non-strategic nuclear threat to

the U.S. was more hypothetical than real, because of a combination of factors, including the limited capability of Soviet SLCMs, the ability of the USN to control the seas, and the likely assignment of tasks to Soviet attack submarines in case of war.

In the case of naval non-strategic nuclear weapons, opinion within the USG was divided. Paul Nitze, who made the initial suggestion (inside the USG) to negotiate an end to non-strategic naval nuclear weapons, believed these weapons to be unnecessary and burdensome to a force whose essential mission was conventional in nature. Furthermore, it could be argued that naval "denuclearization" favored the USN in a U.S./Soviet context, given the Soviet navy's greater dependence on nuclear weapons. On the other hand, most opinion within the USN came to the opposite conclusion, stressing the verification difficulties and the separate need for nuclear deterrence at the non-strategic level within each Service. As the plausibility of a major U.S./Soviet conflict waned, the "unnecessary and burdensome" point of view came to outweigh that of "deterrence," and the bold unilateral stroke of President Bush finessed the entire issue of verification.

Opinion within the USG was strongly aligned against the idea of SLBM "bastions," although it received some support within non-governmental circles. The arguments are complex, and are examined more fully in this chapter. Soviet proponents never demonstrated how such an agreement could be monitored. At the fundamental policy level, the issue that divided proponents and opponents was the desirability of the condition of mutually assured destruction.

It is difficult to understand the Soviet motivations to negotiate such agreements, given the presumed lack of durability in a crisis. Even though some degradation of capability can be expected from operations that are not practiced, SLCMs that are removed from ships can be redeployed, and bastions that are respected in peacetime can be penetrated in wartime. Therefore, the Soviets would have achieved no enduring security benefit had these agreements been negotiated. On the other hand, generating proposals costs little beyond the time of the few individuals charged with writing them. It may simply be that these proposals were seen as low cost, low gain measures whose real message was the deep political anxiety expressed by them. Furthermore, the Soviets, and to some degree the USG, has at times seen arms control negotiations as an end in themselves. It has often been noted that the Soviets saw a political benefit in the SALT negotiations deriving from its implicit bestowing of great power status. It may be that some of the attractiveness of naval arms control to the Soviets (and unattractiveness to the

U.S.) had a similar basis: the Soviet desire to be formally recognized as a great and equal naval power.

The majority of the rest of the operational and structural proposals are one-sided disengagement proposals geared to rein in or impede the global reach of the USN. Included in this list are proposals to limit foreign bases, exercise size and duration, and fleet sizes in selected waters. Given the perceived role that the USN played in the peacetime global cold war competition, the Soviet interest in these efforts is obvious. The U.S. response was generally negative. Opponents stressed the danger not only of opening the door to further incursions on the principle of freedom of the seas but also limiting in advance the ability of the USN to operate in some future unknown contingency. Proponents pointed to the benefits of detente and the desirability of restraining competition in seas that were not central to the East\West conflict. With the exception of the abortive Indian Ocean negotiations during the Carter administration (which had few supporters within the USG), the U.S. has consistently rejected such proposals. Soviet interests in disengagement proposals are easier to understand than their interest in nuclear proposals, since the former had direct political relevance to the peacetime cold-war competition.

The structural proposal that may still retain relevance is the bilateral limitation of attack submarines. This proposal, perhaps more than any other, is a classic example of arms control: a symmetric, verifiable limitation of weapons whose utility relate, to a great extent, to conflict between the negotiating partners. Be that as it may, this proposal has not been officially tabled by any U.S. or Soviet governmental official.

The last set of proposals are the confidence-building measures, patterned to some degree on the CSCE agreements. These are mostly exchanges of information about a variety of issues, from strategy and budgets to exercise schedules. Proponents of these measures stress the importance of the transparency that will flow from them.

Apart from the successfully negotiated INCSEA and related agreements, which are a special case and have proved beneficial to both the U.S. and the Soviet Union, the U.S. and its allies have worked diligently to exclude naval confidence-building measures from appropriate agendae. Perhaps the strongest objection to negotiating what appear in many cases to be innocuous agreements is the "slippery slope" concern. Soviet negotiating practice attempted to use confidence-building measures as a thin entry wedge to more rewarding (from the Soviet point of view) agreements limiting operations. To protect itself from future pressures, the U.S. simply declined to discuss the subject at all. The U.S. was

then in the position of rejecting an agreement that in itself might have been unobjectionable in order to fence off future incursions into undesirable areas.

Concerns about slippery slopes are pervasive in a wide variety of negotiating situations. But in the U.S. response to naval confidence-building proposals, they may well have been the central issue. There is no question that the perceived danger was real, but it is possible that there were ways to establish firebreaks and limits other than by simply refusing to address the entire issue.

The overall picture that emerges from the history of cold war naval arms control is relatively straightforward. In the areas of structural and operational agreements, a sharp disconnect between the U.S. and the Soviet Union in the perceived advantages of an agreement made the prospect for successful negotiation dim. In the field of confidence-building measures, a more promising area for successful negotiation, the U.S. response to Soviet negotiating practice also precluded any agreement.

There is, therefore, no mystery as to why naval arms control produced such a meager output during the cold war period. The intersection of Soviet and U.S. interests gave little room for maneuver, and what room there was (mostly in the area of CBMs) was further constricted by persistent Soviet attempts to expand the agenda beyond the area of mutual advantage.

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Appendix A

DETAILS OF NUCLEAR-ARMED NAVIES OF THE WORLD

DETAILS OF NUCLEAR-ARMED NAVIES OF THE WORLD

As stated in Chapter II, Section G, five countries operate nuclear-capable navies--the United States, the former Soviet Union, the United Kingdom, France and China. The first four navies deploy both strategic and tactical naval nuclear weapons on ships and land-based naval aircraft. The Chinese Navy is not believed to have naval tactical nuclear weapons.

President Bush's unilateral decision of 27 September 1991 to remove all sea-based tactical nuclear weapons from ships and land-based naval aircraft will make a dramatic change in the numbers, types and deployments of naval nuclear weapons. The President's initiative on naval weapons follows:

> The United States will remove all tactical nuclear weapons, including nuclear cruise missiles, from its surface ships and attack submarines. We will also withdraw nuclear weapons associated with our land-based naval aircraft. Many of these weapons will be dismantled and destroyed with the remainder placed in secure central storage areas.
>
> -- The President is calling on the Soviet Union to remove all tactical nuclear weapons from its surface ships, its attack submarines and bases for land-based naval aircraft, to destroy many of those weapons, and to consolidate the remainder at secure central locations.
>
> Additionally, the President proposed that the U.S. and USSR begin discussions to explore cooperation on improving nuclear command and control, warhead security and safety, and safe and environmentally responsible storage, transportation, dismantling and destruction of nuclear weapons.

On 6 October 1991, President Gorbachev responded in kind with the announcement that:

> All tactical nuclear weapons will be removed from surface ships and multi-purpose submarines. These weapons, as well as weapons from ground-based naval aviation will be stored. Part of them will be destroyed.
>
> Thus, the Soviet Union and the United States are taking reciprocal radical measures leading to the elimination of tactical weapons.

The Soviet Union urges other nuclear powers to join these far-reaching Soviet-U.S. measures as regards tactical weapons...

We hereby stress readiness to embark on a specific dialogue with the United States on the elaboration of safe and ecologically responsible technologies for the storage and transportation of nuclear warheads and on the methods of utilization of nuclear warheads and nuclear charges, and to design jointly measures to enhance nuclear safety.

The following table summarizes the status of nuclear weapons at sea prior to President Bush's decision and the response of President Gorbachev:

Table 1. Nuclear Weapons at Sea, 1990[1]

	U.S.	Soviet	U.K.	France	China	Total
Weapons						
Strategic missile warheads	4912	3684	96	400	26	9100*
Nonstrategic warheads						
Cruise missiles	350	400	0	0	0	750
Aircraft bombs	925	450	25	36	0	1436
Antisubmarine weapons	550	1300	25	0	0	1875
Anti-air weapons	0	200	0	0	0	200
Coastal missiles	0	100	0	0	0	100
Total nonstrategic	1825	2450	50	36	0	4361
Total	6737	6134	146	436	26	13500
Nuclear-capable ships and submarines						
Submarines						
Ballistic missile	33	61	4	5	2	105
Cruise missile	0	31	0	0	0	31
Attack	57	138	0	0	0	195
Total submarines	90	230	4	5	2	331
Surface ships						
Aircraft carriers	12	5	3	2	0	22
Battleships	2	0	0	0	0	2
Cruisers	19	31	0	0	0	50
Destroyers	17	32	12	0	0	61
Frigates	0	97	17	0	0	114
Patrol combatants	0	81	0	0	0	81
Total surface ships	50	246	32	2	0	330
Total submarines and ships	140	476	36	7	2	661

* Totals may not add up due to rounding.

Note: These tables are adapted from Joshua Handler and William M. Akin, *Nuclear Warships and Naval Nuclear Weapons: A Complete Inventory*, Neptune Paper No. 5 (Washington, D.C.: Greenpeace, 1990); *Nuclear Weapons Databook Vol. IV: Soviet Nuclear Forces* (1989); and *Nuclear Weapons Databook Vol. I: U.S. Forces and Capabilities* (forthcoming).

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1 Bulletin of the Atomic Scientists, September 1991, p. 49.

Prior to the sweeping changes announced by Bush and Gorbachev, the naval forces of the five nuclear powers possessed about 13,500 nuclear weapons, nearly 30 percent of the world's total nuclear arsenal. About 661 ships and submarines could fire naval nuclear weapons. Approximately 2,400 nuclear-capable aircraft and helicopters had attack and/or antisubmarine missions. Strategic warheads comprised about 66 percent of the naval total, a ratio that continues to increase, especially as tactical nuclear weapons are retired. Under START, U.S. strategic warheads at sea will stabilize at some 3,000 by 1999. All of the naval nuclear powers are slowing their strategic submarine programs: the U.S. Trident program has been cut to 18 submarines, with only 10 planned to carry Trident II missiles; the Soviet Union ended production of the Typhoon SSBN; Britain and France are retiring the first of their ballistic missile submarines, and may not build as many replacements as expected.

These reductions follow a pattern of "spontaneous disarmament" begun in the mid-1980s, when older nuclear systems began to be retired with no nuclear replacements. U.S. and Soviet navies were already retiring or denuclearizing large numbers of ships and submarines in the transition from cold war footing. In addition, many weapon systems have been retired or modified for conventional missions and others reassessed as non nuclear. In 1989, the U.S. Navy started reducing its nonstrategic nuclear delivery platforms, with the exception of surface ships and submarines armed with SLCMs, by retiring ASROCs, SUBROCs and AAMs.

Between 1988 and 1991, U.S. nuclear-capable ships and submarines declined from 292 to 140, and Soviet nuclear-capable ships and submarines declined from 663 to 476. Within a few years, the U.S. Navy will have only 32 SSBNs as its total nuclear-capable inventory, with 10 Poseidon boats scheduled for early retirement in accordance with the START Treaty. If the Commonwealth (USS) matches the United States in reductions, only Russian (USS) SSBNs will carry nuclear weapons.

There is some question as to whether the reductions pledged by President Gorbachev will exactly parallel those of the United States. Although not clearly stated in President Gorbachev's response, it is believed that SLCMs were included in Gorbachev's response. Nuclear SLCMs are classified as tactical weapons in the United States, but the Soviets consistently referred to them as strategic, and tried to "capture" them in START. The issue was resolved by a binding, diplomatic, side agreement to START that would limit the number of nuclear-armed SLCMs. A representative of the then Soviet (USS) Ministry of Foreign Affairs (MOFA) recently stated his opinion that submarine-based

SLCMs were not included in the Gorbachev response. However, according to a U.S. team visiting Moscow after the exchange of unilateral declarations by Bush and Gorbachev, SLCMs are included in the Soviet response. The MOFA representative also stated that the removal of weapons would be slower than removal of U.S. weapons due to a shortage of storage facilities and the larger numbers of weapons on Russian (USS) ships.

The Chinese are not believed to have tactical nuclear weapons at sea. The United Kingdom announced that it would follow the lead of the United States in removing all tactical naval nuclear weapons from ships and naval aircraft. French policy on this issue is not clear, but there has been no announced change in the previous French position that some carrier-based aircraft will carry nuclear weapons.

Since nuclear weapons are being removed from U.S. ships in accordance with the normal deployment cycle, naval tactical forces of the United States will be effectively denuclearized in the spring of 1992. This will make the "neither-confirm-nor-deny" policy of the U.S. moot, since SSBNs will be the only known naval units to carry nuclear missiles.

Appendix B

DETAILED ANALYSES OF DENUCLEARIZATION PROPOSALS

DETAILED ANALYSES OF DENUCLEARIZATION PROPOSALS

NACS11

PROPOSAL:

Bilateral removal of all non-strategic nuclear weapons from all surface and subsurface naval vessels, including sea-based naval air.

BACKGROUND:

This proposal was given considerable impetus when Paul Nitze, senior arms control adviser to the Reagan administration, endorsed it publicly in April 1988. The Soviet navy has generally objected to the idea, but Soviet spokespersons have occasionally suggested that the Soviets would agree to a bilateral nuclear cruise missile ban. President Gorbachev proposed a ban on all "tactical" naval nuclear weapons at the Malta Summit in December 1989, essentially endorsing the Nitze proposal. The USG rejected both the Nitze and the Gorbachev proposals.

POINTS THAT PROPONENTS MIGHT MAKE:

- The Soviets would be less likely to attack U.S. naval forces with nuclear weapons because of both the diminished Soviet anti-ship nuclear capability and the reduction of the USN nuclear threat to Soviet land targets.
- Ships would be freed from the overhead burden associated with the presence of nuclear weapons.
- Potential problems with allies and other countries due to the NCND policy would be removed.
- The U.S., with its long coastlines, is likely to benefit more by the removal of nuclear land-attack SLCMs than the Soviet Union.
- Conventional SLCM capability would be unimpaired.

- The verification burden would be eased because systems would be eliminated rather than limited.
- The USN could restore its nuclear capability in time of war.
- The risk of an accidental launch of a Soviet SLCM would be substantially diminished.

POINTS THAT OPPONENTS MIGHT MAKE:

- A major theater nuclear capability of the U.S. would be removed.
- The nuclear threat to the fleet posed by Soviet Naval Aviation would not be limited.
- A highly survivable part of the U.S. strategic nuclear reserve would be removed.
- An intrusive monitoring regime would be required, and Soviet compliance with the agreement would be difficult to assure.
- Sea-based nuclear weapons can play a deterrence role in regional contingencies.
- The time required for Soviet breakout would be small.

DISCUSSION:

A discussion of the arguments common to all of the denuclearization proposals is contained in the analysis of S10.

There are two major disadvantages to this formulation of the denuclearization concept. First, nuclear-capable aircraft of Soviet Naval Air, the greatest threat to the survival of the fleet, will remain outside of the agreement. Opponents argue that the proposal would undermine deterrence, since a denuclearized fleet could not respond in kind to an attack by Soviet nuclear weapons. The counterargument is that the deterrence umbrella of the entire U.S. nuclear arsenal is under a common command, and shields all Services equally. Second, the opportunities to deploy a highly visible nuclear deterrent against a small nuclear power in a regional contingency would be severely constrained. It is conceivable that an agreement with the Soviets might recognize the possibility of an exception for a very limited deployment in such a contingency.

This proposal retains the option of naval conventional cruise missiles, complicating verification, but preserving an important new area of weaponry in which the U.S. currently has a technological lead. The total ban on all nuclear cruise missiles somewhat eases the

verification burden compared to proposals allowing nuclear cruise missile deployments on some platforms.

NACS11A

PROPOSAL:

Bilateral removal of all non-strategic nuclear weapons from all surface and subsurface naval vessels and land- and sea-based naval air.

BACKGROUND:

Paul Nitze, senior arms control adviser to the Reagan administration, proposed removing all sea-based non-strategic nuclear weapons in April 1988. President Gorbachev made a similar proposal at the Malta Summit. Neither proposal included Soviet Naval Air.

In the FY91 Defense Authorization Act, the U.S. Congress asked the DoD to examine limits or a ban on non-strategic nuclear weapons. The DoD report concluded that such an agreement was not in the interest of the U.S. One important argument advanced in that report was that the Soviet Naval Air nuclear threat would not be addressed. Former CNO Admiral Trost in testimony before the Senate Armed Services Committee indicated that such an agreement might be in the U.S. interest if land-based nuclear threats to the fleet were also included. This proposal has not been formally advanced, but is consistent with Admiral Trost's testimony.

POINTS THAT PROPONENTS MIGHT MAKE:

- The Soviets would be less likely to attack U.S. naval forces with nuclear weapons because of both the diminished Soviet anti-ship nuclear capability and the reduction of the USN nuclear threat to Soviet land targets.
- Ships would be freed from the overhead burden associated with the presence of nuclear weapons.
- Potential problems with allies and other countries due to the NCND policy would be removed.
- The U.S., with its long coastlines, is likely to benefit more by the removal of nuclear land-attack SLCMs than the Soviet Union.
- Conventional SLCM capability would be unimpaired.

- The verification burden would eased because systems would be removed rather than limited.
- The USN could restore its nuclear capability in time of war.
- The risk of an accidental launch of a Soviet SLCM would be substantially diminished.

POINTS THAT OPPONENTS MIGHT MAKE:

- A major theater nuclear capability of the U.S. would be eliminated.
- A highly survivable part of the U.S. strategic nuclear reserve would be eliminated.
- An intrusive monitoring regime would be required, and assurance of Soviet compliance with the agreement would be difficult to attain.
- The time required for Soviet breakout would be small.
- Sea-based nuclear weapons can play a deterrence role in regional contingencies.
- The restrictions on Soviet Naval Air are meaningless.

DISCUSSION:

A discussion of the arguments common to all of the denuclearization proposals is contained in the analysis of S10.

This formulation of the denuclearization concept has the advantages and disadvantages of a complete nuclear ban. The greatest threat to the survival of the ships of the USN, the nuclear weapons of the Soviet Navy including those of Soviet Naval Air, would no longer be deployed. The burden of verification is eased compared to those formulations allowing nuclear deployments on some platforms. On the other hand, the opportunities to deploy a highly visible nuclear deterrent against a small nuclear power in a regional contingency would be severely constrained. It is conceivable that an agreement with the Soviets might recognize the possibility of an exception for a very limited deployment in such a contingency.

This proposal retains the option of naval conventional cruise missiles, complicating verification compared to those proposals calling for a total ban on SLCMs, but preserving an important new area of weaponry in which the U.S. currently has a technological lead.

Removing the nuclear capability of Soviet naval air presents several difficult definitional and verification problems. There is no fundamental difference between the Badger and Backfire bombers operated by Soviet strategic air and those operated by Soviet naval air aside from the Service to which the airmen who fly and maintain them are assigned. How missions are allocated between these two forces is not transparent, and it could be argued that unless the entire fleet of strategic and non-strategic Soviet bombers is denuclearized, the U.S. would have no assurance that the Soviets did not possess an effective anti-ship nuclear capability, no matter what treaty was signed. On the other hand, it is unlikely that the Soviets would be willing to accept a unilateral denuclearization of its entire bomber fleet, unless the U.S. were willing to reciprocate (which seems highly unlikely). Thus, the trade-off for the U.S. would be an elimination of its entire sea-based non-strategic (while retaining its sea-based strategic) land attack capability for an elimination of all of the sea-based and part of the possible land-based threat to the surface fleet.

It could be argued that the importance of the Soviet Naval Air question is exaggerated, given the relatively short time scale for reconstitution of the USN's non-strategic nuclear capability, compared to the current very long warning time for the reconstitution of the Soviet land attack capability in Europe. In summary, while opponents might argue that the limitations imposed on Soviet naval air are meaningless, they must be prepared to answer the argument that the short time required to restore nuclear capability means that the restrictions imposed on the U.S. by the agreement will not impact U.S. national security in a meaningful way.

NACS12

PROPOSAL:

Bilateral removal of all nuclear weapons from all surface naval vessels, including sea-based naval air.

BACKGROUND:

This is a variation of the Nitze proposal to remove all non-strategic naval nuclear weapons, made in April 1988. It has not been proposed by any Soviet or U.S. official. The Soviet navy opposed the Nitze proposal, and could be expected to oppose this proposal even more strongly, since it would not constrain nuclear land-attack submarine-based SLCMS, which concern Soviet defense planners.

POINTS THAT PROPONENTS MIGHT MAKE:

- The Soviets would be less likely to attack the U.S. surface fleet with nuclear weapons because of both the diminished Soviet anti-ship nuclear capability and the reduction of the surface fleet's nuclear threat to Soviet land targets.
- Ships would be freed from the overhead burden associated with the presence of nuclear weapons.
- A potential source of friction with allies and other countries brought about by the NCND policy would be reduced.
- Conventional SLCM capability of surface ships would be preserved.
- The verification burden would be eased because systems would be removed from designated platforms rather than limited in number, and submarines, which are the most difficult platforms to verify, would be exempted.
- Submarines, the most survivable platforms for the theater and the reserve nuclear role would be retained.
- The USN could restore its nuclear capability in time of crisis or war.

POINTS THAT OPPONENTS MIGHT MAKE:

- An highly intrusive monitoring regime would be required, and assurance of Soviet compliance with the agreement would be difficult to attain.
- The time required for Soviet breakout would be small.
- No restrictions are placed on Soviet naval air.

DISCUSSION:

A discussion of the arguments common to all of the denuclearization proposals is contained in the analysis of S10.

The major mission of U.S. non-strategic naval nuclear weapons is to attack targets on land. Land-attack weapons are divided into three classes: surface-based SLCMs, submarine-based SLCMs, and carrier air. The Soviet navy has some land attack nuclear capability with long range surface- and sub-surface SLCMs, and is modernizing this capability, but its chief nuclear mission is to attack the USN with anti-ship missiles launched on sea-based platforms and on intermediate range naval aircraft. The Soviets probably consider submarine-based SLCMs to be the most threatening component of the USN nuclear arsenal, while the USN considers land-based naval aircraft to be the most threatening component of the Soviet navy's nuclear inventory.

Currently, submarines constitute about 60 percent of the platforms for U.S. nuclear SLCMs. Thus, the numerical majority as well as the must survivable fraction of the SLCM theater and reserve nuclear capability of the U.S. fleet would be preserved in this proposal. While it is true that the elimination of carrier air nuclear weapons would diminish the nuclear non-strategic capability of the navy, the importance of that role for carriers is currently being questioned by some within the USN. The elimination of the nuclear capability of Soviet surface ships might be seen by some as a tradeoff in the U.S. interest.

This proposal retains the option of naval conventional cruise missiles, which complicates verification but preserves an important new weapon system in which the U.S. currently has a technological lead.

Compared to the proposal to completely remove all non-strategic nuclear weapons, this proposal has advantages and disadvantages as far as reliable verification is concerned. An exemption of submarines would eliminate the most difficult platform to monitor, but on the other hand, a total nuclear SLCM ban may be easier to monitor than a partial ban by the kinds of procedures at the manufacturing source used to monitor the INF treaty.

NACS12A

PROPOSAL:

Bilateral removal of all nuclear weapons from all surface naval vessels, including land- and sea-based naval air.

BACKGROUND:

This is a variation of the Nitze proposal to remove all non-strategic naval nuclear weapons made in April 1988. It has not been proposed by any Soviet or U.S. official. It is analyzed here for the sake of completeness.

POINTS THAT PROPONENTS MIGHT MAKE:

- The Soviets would be less likely to attack the U.S. surface fleet with nuclear weapons because of both the diminished Soviet anti-ship nuclear capability and the reduction of the surface fleet's nuclear threat to Soviet land targets.
- Ships would be freed from the overhead burden associated with the presence of nuclear weapons.
- A potential source of friction with allies and other countries brought about by the NCND policy would be reduced.
- Conventional SLCM capability of surface ships would be preserved.
- The verification burden would be eased because systems would be removed from designated platforms rather than limited in number, and submarines, which are the most difficult platforms to verify, would be exempted.
- Submarine-based SLCMs, the most survivable platforms for the theater and the reserve nuclear role, would be retained.
- The USN could restore its nuclear capability in time of crisis or war.

POINTS THAT OPPONENTS MIGHT MAKE:

- An intrusive monitoring regime would be required, and assurance of Soviet compliance with the agreement would be difficult to attain.

- The time required for Soviet breakout would be small.
- The restrictions on Soviet naval air are meaningless.

DISCUSSION:

A discussion of the arguments common to all of the denuclearization proposals is contained in the analysis of S10.

This proposal is a variation of the proposal to remove nuclear weapons from surface ships (S12). It adds to that proposal banning nuclear capability of surface vessels a prohibition against nuclear capability of land-based naval aircraft, including those of Soviet Naval Air.

The major mission of U.S. non-strategic naval nuclear weapons is to attack targets on land. Land-attack weapons are divided into three classes: surface-based SLCMS, submarine-based SLCMs, and carrier air. The Soviet navy has some land-attack nuclear capability with long-range surface and sub-surface SLCMs, but its chief nuclear mission is to attack the USN with anti-ship missiles launched from sea-based platforms and from intermediate range naval aircraft. The Soviets probably consider submarine-based SLCMs to be the most threatening component of the USN nuclear arsenal, while the USN considers land-based naval aircraft to be the most threatening component of the Soviet navy's nuclear inventory.

Since this proposal eliminates land-based nuclear-capable naval aircraft but retains submarine-based SLCMs, it will likely be seen as one of the relatively more favorable naval denuclearization proposals from the U.S. point of view. Currently, submarines constitute about 60 percent of the platforms for U.S. nuclear SLCMs. Thus, the numerical majority as well as the most survivable fraction of the SLCM theater and reserve nuclear capability of the U.S. fleet would be preserved in this proposal. The loss of surface SLCM capability would be compensated for by the elimination of the nuclear capability of Soviet Naval Air, which is the chief threat to the survivability of the U.S. fleet when operating within range of those aircraft.

This proposal retains the option of naval conventional cruise missiles, which complicates verification but preserves an important new area of weaponry in which the US currently has a technological lead.

Removing the nuclear capability of Soviet naval air presents several difficult definitional and verification problems. There is no fundamental difference between the

Badger and Backfire bombers operated by Soviet strategic air and those operated by Soviet naval air aside from the Service to which the airmen who fly and maintain them are assigned. How missions are allocated between these two forces is not transparent, and it could be argued that unless the entire fleet of strategic and non-strategic Soviet bombers is denuclearized, the U.S. would have no assurance that the Soviets did not possess an effective anti-ship nuclear capability no matter what treaty was signed. On the other hand, it is unlikely that the Soviets would be willing to accept a unilateral denuclearization of its entire bomber fleet, unless the U.S. were willing to reciprocate (which seems highly unlikely). Thus, the trade-off for the U.S. would be an elimination of its entire sea-based non-strategic (while retaining its sea-based strategic) land attack capability for an elimination of all of the sea-based and part of the possible land-based threat to the surface fleet.

It could be argued that the importance of the Soviet Naval Air question is exaggerated, given the relatively short time scale for reconstitution of the USN's non-strategic nuclear capability, compared to the current very long warning time for the reconstitution of the Soviet land attack capability in Europe. In summary, while opponents might argue that the limitations imposed on Soviet naval air are meaningless, they must be prepared to answer the argument that the short time required to restore nuclear capability means that the restrictions imposed on the U.S. by the agreement will not impact U.S. national security in a meaningful way.

NACS15

PROPOSAL:

A bilateral agreement to remove all (nuclear and conventional of any range) SLCMs from all submarines and surface ships.

BACKGROUND:

In 1988, Paul Nitze proposed that the United States and the Soviet Union end deployment of all naval non-strategic nuclear arms. This proposal is a predecessor to the 1988 Nitze proposal, and was informally favored by him in the early 1980s. It differs from the 1988 proposal in that it retains the nuclear capability of aircraft carriers, and eliminates the conventional SLCM option for the USN.

POINTS THAT PROPONENTS MIGHT MAKE:

- Since nuclear SLCMs are the principal anti-ship weapon carried by the Soviet surface fleet, their removal would enhance the survivability of the U.S. fleet.
- Removing nuclear SLCMs from submarines reduces the Soviet capacity for surprise, accidental or unauthorized attack against U.S. costal cities.
- Ships would be freed from the overhead burden associated with the presence of nuclear weapons.
- A potential source of friction with some allies and other countries brought about by the NCND policy would be reduced for those ships no longer carrying nuclear weapons.
- The USN would retain a non-strategic nuclear capability with nuclear-capable aircraft carriers.
- Verification would be simplified compared to proposals banning only nuclear SLCMs.
- The use of conventional SLCMs against the Soviet Union would carry with it the risk of unintended nuclear escalation because of the ambiguity inherent in this dual capable weapon.

POINTS THAT OPPONENTS MIGHT MAKE:

- The removal of nuclear SLCMs limits the flexibility of U.S. non-strategic nuclear operations.
- The removal of nuclear SLCMs limits the U.S. reserve nuclear capability.
- The removal of nuclear SLCMs limits deterrent capability of U.S. naval forces.
- The removal of nuclear SLCMs makes carriers a relatively higher value target.
- The banning of conventional SLCMs will eliminate an important element of the USN's current and future capability.
- This proposal does not limit nuclear capacity of Soviet naval aviation, which is a major threat to the U.S. surface fleet.
- Since this proposal does not require the destruction of nuclear SLCMs, it would not prevent rapid breakout by either side.

DISCUSSION:

A discussion of the arguments common to all of the denuclearization proposals is contained in the analysis of S10.

This proposal is a variation of the 1988 Nitze proposal that reduces naval non-strategic nuclear weapons by focusing on the missiles themselves rather than on the nuclear warheads. As a result, this proposal bans conventional SLCMs, but allows the nuclear weapons carried by carrier-based aircraft and land-based naval air.

The important new issue raised in this proposal is the banning of all SLCMs, both conventional and nuclear. There are two major arguments in favor of this provision. The first concerns the practical utility of conventional SLCMs in a major war with the Soviets. It is argued that the warhead ambiguity before detonation combined with the long flight time of the SLCM makes conventional employment dangerous prior to crossing the nuclear threshold. The Soviets, detecting the launch and flight of a long-range conventionally armed SLCM, might well conclude that a nuclear attack was on the way, and that prudence required a nuclear response before detonation. The U.S., cognizant of this danger, might then be inhibited from using conventional SLCMs for fear of triggering an inadvertent crossing of the nuclear Rubicon.

The other important argument in favor of including conventional SLCMs in an agreement to ban nuclear SLCMs relates to the ease of verification. The 1985 Arms Control Impact Statement concluded that the difficulty of distinguishing conventional from

nuclear-armed SLCMs was so great as to make an agreement to limit nuclear SLCMs essentially unverifiable. Proponents would argue that nuclear warheads are much easier to conceal aboard ship than are the missiles themselves and associated equipment. Thus, goes the argument, if all SLCMs are banned, a violation would be easier to detect, and thus a much higher confidence in compliance can be achieved with a less intrusive inspection regime.

Those opposing such an agreement point to the utility of conventional SLCMs in non-Soviet contingencies. They argue that conventional SLCMs will form an increasingly important component of naval firepower, and that a premature closing of this option would significantly limit future USN capability.

Opponents would also question the importance of easing the verification burden, arguing that the entire agreement would be essentially unverifiable, with or without the inclusion of conventional SLCMs. The basis of this position is the covert nature of submarines, and the infeasibility of carrying out challenge on-site inspections on these ships.

In summary, those supporting such an agreement must be able to successfully argue the affirmative position on the following three questions: First, that in the current international environment a bilateral elimination of sea-based nuclear SLCMs is desirable; second, that an inspection regime exists (presumably involving a combination of factory-based inventory control, challenge inspection of ships at sea and in port, and inspection of port facilities) that can successfully monitor and verify the agreement without intrusiveness that compromises USN needs; finally, that the advantages of removing Soviet sea-based nuclear weapons is great enough to overcome the disadvantages of the loss of the contributions of conventional SLCMs to the USN arsenal.

NACS16

PROPOSAL:

Remove nuclear-armed SLCMs from all submarines and surface vessels.

BACKGROUND:

In 1988, Paul Nitze proposed that the United States and the Soviet Union no longer deploy naval non-strategic nuclear weapons. President Gorbachev proposed removing all tactical nuclear weapons from submarines, surface vessels, and carrier-based aircraft during the Malta Summit in 1989. This proposal is closely related to the Nitze proposal, the principal difference being the lack of restrictions on non-strategic nuclear weapons on carrier-based aircraft. It has been analyzed for the sake of completeness.

POINTS THAT PROPONENTS MIGHT MAKE:

- Since nuclear SLCMs are the principal anti-ship weapon carried by the Soviet surface fleet, their removal would enhance the survivability of U.S. fleet.
- Removing nuclear SLCMs from submarines reduces the Soviet capacity for surprise attack against U.S. costal cities.
- The chance of an accidental or unauthorized attack on CONUS would be reduced if such weapons were removed from the Soviet fleet.
- The proposal does not apply to conventional weapons and therefore does not affect the retention of conventional SLCMs.
- Interference with conventional operations brought about by the nuclear capability of vessels would be removed.
- A potential source of friction with allies and other countries brought about by the NCND policy would be reduced.

POINTS THAT OPPONENTS MIGHT MAKE:

- The removal of nuclear SLCMs from submarines and surface vessels limits the U.S. non-strategic and reserve nuclear capability.

- Since conventional and nuclear SLCMs have similar airframes, a complicated and intrusive verification procedure would have to be instituted to support this proposal.
- This proposal does not limit the nuclear capacity of Soviet naval aviation, which is a major threat to the U.S. surface fleet.
- Since this proposal does not require the destruction of nuclear SLCMs, it would not prevent rapid breakout by either side.

DISCUSSION:

A discussion of the arguments common to all of the denuclearization proposals is contained in the analysis of S10.

This is a modification of the 1988 Nitze proposal, altered to meet some of the objections made to it. Nuclear-armed U.S. carrier aircraft would serve as a USN deterrent to both Soviet Naval Air and to a hypothetical third world small nuclear power. On the other hand, the elimination of all SLCMs with nuclear warheads would increase the importance (and therefore, their relative worth as targets) of aircraft carriers, the USN's only remaining non-strategic nuclear platform. Opponents would point out that this proposal reduces the USN's non-strategic nuclear force by eliminating its least vulnerable platform.

This proposal retains the option of naval conventional cruise missiles, complicating verification but preserving an important new area of weaponry in which the U.S. currently has a technological lead. The total ban on all nuclear cruise missiles somewhat eases the verification burden compared to proposals allowing nuclear cruise missile deployments on some platforms.

NACS18

PROPOSAL:

Remove all nuclear-armed SLCMs from surface vessels.

BACKGROUND:

To date, this specific proposal has not been put forth by either superpower. Moreover, neither superpower has evinced much interest in constraints on SLCMs of all ranges. However, this measure has been put forth by several analysts in the open literature as one of a number of variations on the general theme of limiting nuclear SLCMs.

POINTS THAT PROPONENTS MIGHT MAKE:

- It would reduce the threat to USN carrier battle groups posed by nuclear anti-ship SLCMs deployed on surface ships.
- It would retain the SLCM-based non-strategic nuclear deterrent in the form of sub-launched systems.
- It would not affect conventional cruise missiles.
- The verification burden would be eased somewhat, as proposal is restricted to surface ships.
- More Soviet than U.S. ships would be affected.
- It would offer, albeit in diminished form, the same environmental, operational, and safety advantages as broader denuclearization measures.

POINTS THAT OPPONENTS MIGHT MAKE:

- This proposal would still be very difficult to verify without unacceptably intrusive measures.
- It would reduce the theater nuclear capability of the USN.
- USN surface nuclear attack capabilities would be concentrated on the carriers, which would thus become more vulnerable.

- It would reduce the ability of U.S. carrier battle groups to deter Soviet nuclear-capable land-based naval bombers.
- It may overly stigmatize remaining U.S. nuclear-armed ships (e.g., SSNs and carriers).

DISCUSSION:

A discussion of the arguments common to all of the denuclearization proposals is contained in the analysis of S10.

Many U.S. naval experts, both civilian and military, have argued that the inventories of nuclear SLCMs deployed by the two navies are too large. The size of the U.S. SLCM inventory was largely determined by the exigencies of the cold war. With the end of the cold war, many of the concerns that prompted the U.S. to plan for a large inventory of nuclear SLCMs deployed on a large number of platforms have diminished significantly. Warning times are now measured in years rather than in weeks. The Soviet Navy has largely retreated to its home waters, and the Maritime Strategy is no longer USN policy. It can therefore be argued that some fraction of the SLCM capability may be superfluous.

Given the extreme difficulties associated with verifying either a limit on the number of allowable SLCMs or a ban on the deployment of nuclear SLCMs on-board submarines, this proposal, which would remove SLCMs from surface ships only while leaving inventories unconstrained, is probably the most practical means of limiting SLCM deployment.

This proposal is the smallest practical first step towards non-strategic naval de-nuclearization. It would present both reduced advantages and reduced risks as compared to the more restrictive proposals. The latent threat to U.S. coasts and USN carrier battle groups would be somewhat reduced, but not eliminated. More Soviet than U.S. platforms would be affected, but the Soviets would retain more nuclear-capable SLCM platforms than would the U.S.. The potential for sabotage, an environmentally hazardous accident, or accidental escalation would be lessened, but would still exist. Surface ships would no longer be burdened by the inconveniences associated with the storage and maintenance of nuclear SLCMs, but SSNs would continue to be so burdened.

Many of the risks associated with a complete ban of sea-based nuclear weapons would be reduced. The USN would still retain a large residual capability to launch nuclear SLCMs. This residual capability would mitigate, probably substantially, the imp f

cheating or of an attempted "break-out." This, in turn, would render the difficulties of verification somewhat less troublesome. The concentration of the surface nuclear deterrent upon the carriers might increase the relative importance of carriers as targets, but this would be somewhat off-set by the SLCMs deployed on SSNs. The linkage between the defense of Europe and the U.S. strategic arsenal would continue to be strengthened by the existence of the SLCM, although those SLCMs would be deployed on somewhat less visible platforms. It must be noted, moreover, that prior to the development of TLAM, the naval contribution to the European theater deterrent consisted of carrier air-delivered weapons and dedicated SLBMs.

It has been suggested that the removal of nuclear weapons only from certain platforms would stigmatize those remaining ships allowed to carry nuclear weapons. Certain countries (those known to be least comfortable with nuclear weapons in general and the NCND policy in specific) might attempt to deny port rights to ships still thought to be carrying nuclear weapons.

As with the other denuclearization proposals, verification of this proposal poses a major challenge. However, as submarines would be exempt from this agreement, the problems associated with verification may not be as great as for certain of the broader measures. The ships themselves are relatively easy to monitor, relevant ships are easily identified, and the number of affected ships is not great. Nonetheless, given the present state of nuclear detection technology, on-board challenge inspections would probably be a necessary component of any reliable verification regime. This may represent a level of intrusion that is unacceptable to the U.S. (and possibly to the Soviets as well).

VARIATIONS AND RELATED PROPOSALS:

S19 Removing all SLCMs from surface ships.

NACS19

PROPOSAL:

Removing all SLCMs (nuclear, conventional and dual purpose) from surface vessels.

BACKGROUND:

This is a variation of proposal S18, which bans all nuclear-armed SLCMs from surface vessels. To date, this specific proposal has not been put forth by any U.S. or Soviet official. It has been analyzed for the sake of completeness.

POINTS THAT PROPONENTS MIGHT MAKE:

- It would somewhat reduce the nuclear threat to USN carrier battle groups.
- It would somewhat reduce the threat to U.S. coasts posed by Soviet land-attack SLCMs.
- It would retain the SLCM-based non-strategic nuclear deterrent in the form of sub-launched systems.
- It would not affect conventional cruise missiles.
- The verification burden would be eased because all SLCMs would be banned from surface vessels.
- Ships would be freed from the overhead burden associated with the presence of nuclear weapons.

POINTS THAT OPPONENTS MIGHT MAKE:

- This proposal would be difficult to verify.
- It would reduce the theater and reserve nuclear capability of the USN.
- USN surface nuclear attack capabilities would be concentrated on the carriers, which would thus become relatively more lucrative targets.
- It would reduce the ability of U.S. carrier battle groups to deter Soviet nuclear-capable land-based naval bombers.

- It may open the door to further limitations on conventional SLCMs.
- It may overly stigmatize remaining U.S. nuclear-armed ships (e.g., SSNs and carriers).

DISCUSSION:

A discussion of the arguments common to all of the denuclearization proposals is contained in the analysis of S10, and the discussion of proposal S18 gives the advantages and disadvantages of an agreement to ban only nuclear SLCMs from surface ships. This proposal would widen that ban to include conventional SLCMs as well. The major advantage of widening the ban is that the monitoring problem would be eased. The major disadvantage is that the entire responsibility for providing platforms for both conventional and nuclear SLCMs would be shifted to the SSN force, which might prove too burdensome if the size of that force is reduced by funding pressures.

The 1985 Arms Control Impact Statement concluded that the difficulty of distinguishing conventional from nuclear-armed SLCMs was so great as to make an agreement to limit nuclear SLCMs essentially unverifiable. Since the missiles and launchers are physically much larger than their warheads, and since the detection of any missile would constitute a violation, a total SLCM ban would be easier to monitor than a ban on only nuclear warheads. It is doubtful that a reliable monitoring regime could be devised without challenge on-board inspections, which the USN might continue to find unacceptable. It is likely, however, that the required inspection to verify a total, as compared to simply a nuclear, SLCM ban would be less intrusive, and thus more acceptable.

On the other hand, the loss in conventional SLCM capability brought about by a nuclear/conventional SLCM arms control coupling is not in the U.S. interest. The USN believes that its defences against Soviet SLCMs are adequate, and values its own capability in this area. Thus, it is only the easing of the verification burden that makes a total (as compared to a nuclear) SLCM ban worth considering. Given the relatively short time scale for breakout by either side, as well as the unconstrained submarine-based nuclear SLCM capability in this proposal, it is not at all clear how worthwhile it would be to pay this price for reliable verification.

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